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ABSTRACT

This report describes the first year of a 3-year extension of an Office of Education-funded program to prepare teachers and teacher aides to work with exceptional children in the regular classroom. (The final report of the original 1-year project is available as ED 043 598.) The emphasis during the first extension year was on securing greater involvement in the project by the community and closer cooperation between the university and the public schools. Extensive continuing evaluation of all aspects of the project indicated that: 1) children at the laboratory school or in participating districts were getting more individualized attention which served to maintain, if not enhance, self-concepts and achievement; 2) trainees improved attitudes and skills in working with educationally disadvantaged children; and 3) institutional change occurred through curriculum changes, inter-departmental activities, and community involvement. (The progress report includes 20 appendixes which contain the details of the evaluation, forms used in the evaluation, descriptions of practical experiences by teachers involved in the project, lists of staff and trainees, and letters from participating schools and other organizations interested in the project.) (RT)

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DIRECTOR'S ANNUAL PROGRESS REPORT

Project # OEG-070-1896 (725)

"A Program to Assist Educational Personnel to Teach Students of Wide Variability in Regular Classrooms."

July 1, 1970 to June 30, 1971

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I. Introduction

Initial planning for a program to prepare personnel to work with exceptional children in the regular classroom began under the direction of Dr. Kenneth Farrer in early 1969. Numerous meetings among Utah State University (USU) personnel and other educational personnel throughout the state provided the groundwork for an initial one-year proposal which was submitted to the Bureau of Education Personnel Development (BEPD) in the U.S. Office of Education.

At its inception, BEPD has commited 15% of its training funds under three parts of the Education Professions Development Act (EPDA) for training programs to prepare educational personnel to work with handicapped children in the regular classroom and to prepare teacher aides to work with handicapped children in either regular or special classrooms.

BEPD responded to the proposal from USU with a grant of approximately $275,000 for the 1969-1970 academic year in order to implement "A Cooperative Instructional Services Program for Improving Educational Personnel to teach Special Educational Students in the Regular Classroom." A final report from that first year has been published by Research in Education (ERIC), and is available under the designation of ED 04[illegible] 598. Foundations and guidelines developed in that project were revised and enlarged for this the first year of a three-year extension to improve training procedures for personnel in order that they might better meet the needs of all children.

A. Needs

Growing sophistication in the fields of regular and special education has generated an increasing demand for personnel and facilities to meet the special needs of each and every child. Attempts to meet these needs are apparent in a growing number of personnel trained and facilities designed to meet the needs of all children. Yet, it is being recognized in virtually every area of special services that the supply of personnel and facilities tends to fall further behind the demand even as the supply is increasing. This is true for a number of reasons.

1. As efforts are extended to meet the needs of each child, his uniqueness is recognized to be overwhelmingly complex. When studied, all children will manifest multiple traits classifiable as strengths or weaknesses. Intensive study of remediation for any one trait tends to serve as a springboard for extrapolation into other areas.

2. Even when classified patterns of behavior are identified in the development of a child, the establishment of appropriate programs on a special unit basis is commonly not feasible. Many smaller schools do not have adequate populations of particular "types" of children to afford the development

of special education units.

3. Efforts to categorize children have raised reactions from many groups who are concerned about inappropriate placement of children in ability groups or special units. This is exemplified by recent court cases which have ruled that placement of a child on the basis of tests which are culturally biased is unconstitutional.

4. The cost of adequate units for separate placement of children with special needs is formidable. Requests for the funding of special education units in many areas have been denied because of insufficient funds.

5. Many educators are concerned about the potential for detrimental effects from the social isolation which is imposed by segregation to meet special education needs.

These reasons are very general; however, they are suggestive of the considerations which must be made in preparing personnel to meet the educational needs of children in the future. They suggest that a shift must be made away from the increasing tendency to segregate children on the bases of categories. They do not imply that the needs of all children can be met in the regular classroom; rather, that efforts must be extended to meet more of the needs of special education students in the regular classroom. By identifying and providing specifiable teacher training and resource requirements, it is hypothesized that the extent to which special education children require segregated placement will be reduced. The task of the program at USU is to clarify the nature of those requirements and to train personnel to that end.

B. Goals

The major goals which were specified in the proposal for the first year of the project have been retained in the three-year extension, with minor alterations. One additional goal (#4 of those which follow) was added during the first year of the extension to emphasize new BEPD priorities. The goals are as follows:

1. To retrain experienced teachers and train auxiliary educational aides to assist handicapped children and educationally impoverished children to reach a higher level of learning potential in the regular classroom.

2. To use the team approach as a positive force for the development of skills and understandings of human relationships requisite to effective participation in a team enterprise, with division of labor and limits of autonomy identified for each participating member.

3. To effect change in the teacher-education program by providing multiple opportunities for early entry as well as conventional entry to training experiences in pre-kindergarten through sixth-grade programs to know, to be aware, and to become more sensitive to the handicapping conditions to learning.

4. To involve agencies from the community in the educative process for the enhancement of learning for all children, and for facilitation of constructive interaction between schools and communities.

C. Project Objectives

1. Edith Bowen Laboratory School master teachers, experienced teachers, and educational aides will demonstrate an evidence of an increasing understanding in the knowledge related to educating handicapped children and will demonstrate how to locate sources for reference of authoritative diagnostic and prescriptive procedures.

2. Experienced teachers will demonstrate application of newly gained knowledge of children having variant learning abilities by cooperative planning in teams to meet the individual needs of the children in their classrooms as observed by master teachers. Aides will demonstrate their abilities to construct materials to assist in more diversified methods of teaching.

3. Master teachers will have developed sufficient knowledge and skills in meeting the needs of children having variant learning abilities to demonstrate judgement in the evaluation of decisions made by experienced teachers in materials and methods used in the practicum of the laboratory school classrooms.

4. Educational aides will demonstrate by performance in the practicum with children a recognition that after the experienced teacher maps out the long-range goals, the aide can contribute to the accomplishment of the daily, short-range goals.

5. Experienced teachers will demonstrate an understanding of the principles of curriculum development by applying procedures and carrying out short- and long-range plans which relate to both regular and special education.

6. Experienced teachers will demonstrate an understanding of how to correlate two subjects in curriculum planning. Aides will demonstrate ability to explain verbally what the teacher is doing and why the curriculum design.

7. Experienced teachers will demonstrate through verbal language and by the breadth of projects chosen the many ways of helping all children use their higher-level mental processes.

8. Trainees will develop the skills necessary to manipulate instructional media equipment.

9. Trainees will develop the manipulative skills necessary to construct visual aides for classroom use.

10. Trainees will demonstrate in the seminar sessions acceptance of the meaning of division of labor with compassion for the autonomy of each participant.

11. Student teachers will become sensitive to different learning disabilities as measured by their ability to react to learning problems of young children as they occur in classroom situations. This will be accomplished as an outgrowth of changes in teacher education from class lectures to various procedures of involving prospective teachers with children.

12. University students will be provided with opportunities to observe and work directly with children who possess variant levels of potential for learning in order to enhance learning in children, university students and project personnel.

D. Performance Objectives

1. Trainees (experienced teachers, student teachers and instructional aides) in the EPDA Project will develop increasingly positive values (the connotative, emotional and/or effective aspect of attitudes) toward working with exceptional children in the regular classroom, team teaching, teacher aides, parent involvement, and community control as measured by monthly semantic differentials designed for the respective areas.

2. Trainees will develop increasingly positive beliefs (the denotative rational and/or cognitive aspects of attitudes) about the reasonableness of educating exceptional children in the regular classroom, team teaching and teacher aides, as measured by monthly semantic differentials designed for the respective areas.

3. The self-concepts of trainees will become higher (P. is less than .05) through the EPDA Project, as measured by pre-and post-project tests with the Tennessee Self Concept Scale.)

4. Trainees will develop increasingly positive values of the child's role in the process of learning, as measured monthly by the Minnesota Teachers Attitude Inventory.

5. Trainees will demonstrate an increasing tendency to individualize their instruction as measured monthly by a behavioral check list.

6. Trainees will comprehend knowledge (P. is less than .01) about the characteristics of exceptional children, as measured by a pre-and post-project multiple choice examination.

7. Trainees will value the training they receive through the EPDA Project as measured by subsequent employment of 90% of the participants in occupations in education which utilize that training.

8. Trainees will continue to apply the individualized methods which they utilized in Edith Bowen Lab School (to a level of 80% or more of that which they demonstrated prior to leaving the project) when they are employed in their home environment, as measured by a behavior check list.

II. Operation of the Program

Much of the groundwork for this year of operation had been completed during an initial one-year grant from BEPD during the 1969-1970 academic year. That year served as a springboard into this the first year of a three-year extension. The final report from that program (ERIC document ED 043 598) outlines planning activities which were extended into the current year. They will not be reiterated unless significant additions or changes were made since that report was published.

In this report significant organizational considerations will be amplified in order to indicate the philosophy of the program, and to reflect the context from which evaluation was implemented and conclusions were drawn. It would be well if the reader kept in mind that the purpose of this writing is to provide a compilation of information to serve in making constructive changes in the project, as much, if not more than, to document it historically. This approach appears most fruitful for a program which was envisioned as a promoter of change.

A. Planning

In the discussion which follows, a simple model is introduced in an attempt to assist the reader in conceptualizing the total scope of the program. The model will be used to indicate where some problems in communication may have arisen, and particularly to outline areas of interest and concern for evaluation.

Preparation of a prospectus for a three-year extension to the 1969-1970 project occured during the summer of 1969. The title for the extension, "A Program to Assist Educational Personnel to Teach Students of Wide Variability in the Regular Classrooms," was chosen at that time by the USU Laboratory School staff. The concept of "variability" was chosen rather than "handicapped", "exceptional" or "special education" to more adequately describe scope and direction of the program. This was in keeping with BEPD Special Education priorities of promoting programs which sought to meet the needs of handicapped children in regular classrooms, and consistent with the perspective of regular education in attempting to meet the needs of all children where handicapped children were found or placed.

The title chosen addresses itself to a central assignment of BEPD, which is to prepare personnel to serve in various professions. The type of profession emphasized in this case is the education of handicapped children in the regular classroom. Long-range impact of this program was to be reflected in institutional changes that would better serve the needs of personnel so that they could in turn better meet the needs of children. A simplified three-task model can be used to illustrate the areas of concern.

(1) Preparing children to live in and contribute to society.
(2) Preparing personnel (aides, college students, teachers, administrators, etc.) to accomplish task one.
(3) Changing institutions and personnel therein to better prepare educators to accomplish task two.

There is nothing unique in this model. It is introduced primarily to indicate that different individuals tended to approach the project with a frame of mind oriented to one level rather than to its total scope. The level of their interest or concern was quite naturally a function of their particular occupational situation and needs.

A majority of personnel from the participating school districts, staff from the laboratory school, and staff from the USU Department of Special Education tended to ask questions about how well the needs of children were being met, or how to best meet the needs of particular children. These were the most pressing types of questions once the project was underway at the laboratory school where handicapped children are integrated into the regular classroom.

Yet the project had been planned to operate at the second level of the model. Goals and objectives had been written (in part by the laboratory school staff) and criteria established to evaluate primarily in terms of the project's impact on personnel. Children had been involved primarily to provide realism in the application of new ideas and techniques, which were introduced to increase trainee competence at working with children with wide variability. Because of the extent of interest and concern at the first level, more energy of the project staff than had been anticipated had to be oriented in that direction.

Finally, as the project staff was most aware, the intial project proposal had been modified in the negotiation phase to emphasize institutional change. At this third level of the three-task model there had been much less community involvement in planning and making commitments. This was partly due to tight scheduling, and probably more importantly because there was very little other than philosophical and/or theoretical bases from which to make those plans and commitments. For these reasons, consensus as to the best way to proceed toward institutional change probably never could have been reached by a representative group of those who were to do the changing.

Institutional change was conceived of as referring to university change at the time when the proposal was first written and revised. Thus, commitments made at that time reflected concern with curriculum changes for college students, particularly for students in the Department of Elementary Education. This conception, as most project directors are aware, was changed to be much more inclusive at a Kansas City meeting in the fall of 1970. The inclusion of public schools, community agencies, State Departments of Education, federal agencies, businesses and industries, along with colleges and universities, broadened extensively the scope of the project task in bringing about institutional change. This happened while the majority of those who have been involved most deeply were still operating conceptually at level one with children.

In order to enhance communication and more adequately meet the needs of various people who become involved with EPDA projects such as this one, it may be well to plan, implement, and evaluate in terms of at least three levels of concern (children, personnel in training, and institutional change), recognizing that all levels are interrelated but that most individuals have specific interests and concerns which can be accomodated most readily from a more specific orientation.

B. Staff (See Appendix H for names and roles)

Dr. Kenneth C. Farrer assumed general leadership of proposal development and was mainly responsible for writing and editing the project proposal. He continued throughout the first year of implementation as the primary liaison between USU and the U.S. Office of Education.

After the project was funded, Professor Jean Pugmire from the USU Department of Elementary Education assumed duties of the on site director to coordinate admininstration and curriculum considerations for the participants. She was assisted in the task by Bruce Arneklev as research coordinator, Tom Taylor as instructional media specialist, Joan Thorkildsen as liaison with the USU Department of Special Education, and Susan Shandruk as secretary.

Dr. Arthur Jackson, as principal of the laboratory school, assisted in managing the project budget, serving as a liaison to communities, and supervised the practicum for the trainees with the assistance of eight laboratory teachers and the librarian.

University professors from the Departments of Elementary and Special Education met on a weekly basis with each of the eight teams as consultants, Individual professors also served as discussion leaders and lecturers for the seminars on a scheduled basis.

Implementation of seminar ideas in the practicum was limited during the early phases of the program. This process was greatly facilitated when professors were invited to monitoring sessions to provide a summary of what they expected to do in the seminar so that laboratory school supervisors would have a better idea of what to encourage and expect from trainees during practicum time.

The laboratory school setting with children who continually provided stimuli and challenge accentuated the focus of the program on the needs of children. This provided an impetus for visits to the eight laboratory school classrooms by approximately four hundred visitors per month during the last half of the year. This number is made up of professors, parents, students, and others who functioned as consultants, tutors, and observers. Students from university classes were of particular help serving as tutors, consultants, and friends to children while they gained a better perspective of the process of learning. Use of these personnel served to supplement the staff in working with the handicapped while serving as a model for how trainees might use human resources in meeting the needs of all children.

C. Trainees (See Appendix I for names and roles)

The project director and laboratory school principal made visitations to prospective participating school districts during the spring prior to program implementation. During those meetings they discussed aspects of the project and provided administrators with criteria to be used as guidelines in selecting a total of sixteen experienced teachers and sixteen educational aides for training. These criteria were established during the previous year and assisted in obtaining the desired types of trainees. The criteria were:

a. that all teachers and aides be employable and that the district employ them in a position for which they received training while participants in the 18-week practicum and seminar.

b. that all teachers and aides who become participants in the project be willing to return to the school district from which they came and be employed in a position for which they were trained.

c. that all teachers and aides selected be screened and be free from ethnic or racial bias.

d. that, wherever possible, teachers and aides selected for the project come from the educationally disadvantaged or culturally deprived groups.

e. that all project personnel be in good health. A physical examination is to be required.

f. that the teachers selected for retraining be fully certified and have had successful years of teaching experiences and possess potential leadership.

g. that the teacher have sufficient years before retirement age to utilize to the advantage of the school district the experiences for training which he had in the project.

It was desirable that trainees be selected by administrators in various districts in order to gain a commitment from those administrators to employ trainees once they had completed training. Also, district selection of personnel increased the likelihood that trainees would reside in participating districts from which they were sent after their training. This permitted follow-up assistance and evaluation in naturalistic settings after on-site training was completed.

A total of eight educational aide positions were filled by ten persons hired at the project site to assist in the practicum and lend continuity for children while district teachers and aides from participating districts were engaged in seminars.

When possible, personnel from minority groups were selected. Attempts to this end were highly successful. Eleven of the thirty-two personnel sent from participating districts represented minority groups of those districts. Four of the ten full-time aides selected locally represented minority groups. Having three different minority groups (Black, Mexican, and American Indian) created a very desirable atmosphere atmosphere for learning about differences within and among groups.

As part of the process of institutional change, student teachers were initiated into the project. During the fall term eight student teachers served two blocks of time (a total of ten weeks) in the context of the project at the laboratory school. Evaluation of that procedure by staff and students resulted in a decision to rotate student teachers each five weeks. This was done primarily to insure that prospective teachers had the opportunity to work in more typical educational programs before they were employed, but it also provided the opportunity for more student teachers to be exposed to novel approaches being implemented at the laboratory school. As a result, forty student teachers from the regular Elementary Education program were exposed to special education children in the regular classroom.

D. Orientation

Visits were made to participating districts by the project director and laboratory school principal in the spring of 1970 to outline significant aspects of the project. These visits were effective in soliciting support from administrative personnel; however, in some cases a realistic picture of project activities was not conveyed from administrators to prospective trainees. This became apparent early in the training period when some participants expressed dissatisfaction because expectations were not being met. Some further clarification was provided through literature, but a more effective facilitative process occurred in visits to the schools, from which the respective trainees had come, by laboratory school master teachers. This provided an opportunity for dialogue between master teachers and trainees, as well as to make training more relevant to naturalistic settings from which trainees had come.

Correspondence through literature and phone calls was used to answer specific questions, but generally this was not as effective as direct personal contact between personnel to be involved. Several visits to and from the project were made to cement relations between personnel. District administrators' visits to the project site were generally most fruitful. They provided the opportunity for personnel to experience first-hand what was happening in the project and permitted a concurrent dialogue to occur. Several trainees and administrators who will be involved directly in the 1971-1972 project were enticed to visit the project setting by a program in conjunction with the Utah Association for the Education of Young Children (UAEYC) annual meeting, which featured Milt Akers from NAEYC and Governor Rampton.

Visits to the laboratory school were most effective for communicating to and with those who are most closely associated with children. When administrators from the "higher" echelons of institutions were involved it was necessary for visits to be more structured.* Generally speaking, it appeared that higher level administrators were often more attuned to the intellectual expediency of explanations than to the raw sensuoŭs data from which explanations are formulated. If this is true, orientation programs designed to promote institutuonal change will require more structural organization than strategies for changing people. For the people that will be directly involved, however, a sample of involvement appears to be the most promising for setting appropriate expectations within them, as well as in project staff about them.

E. Program Operation

Curriculum implementation for trainees was continued on a basis similar to that which was used in the previous year, with practicum in the laboratory school classroom in the morning and seminar activities in the afternoon.

The seminar was organized to capitalize on the uniqueness of trainees within it. Representation from three minority groups (American Indian, Black, and Mexican American) offered a valuable opportunity for learning about the similarities and differences among and within groups. Participation in "emphasis weeks" for each of the groups on campus was one of the most vital experiences for the total group. It was of particular significance in Utah where several of the trainees had previously had little or no empathy for the feelings of minority group members, or understanding of their own feelings toward minority groups when they were confronted by social issues.

Dydactic presentations in the seminar served to introduce new ideas and techniques for working with handicapped children as well as more typical children. The wide variety of approaches available through various departments on campus provided an interdisciplinary approach. These resources were also supplemented from the State Department of Education, personnel from the community, and other consultants.

Some difficulty was encountered initially by trainees who attempted to apply concepts and procedures introduced in the seminar into the practicum. This problem was substantially alleviated by having seminar speakers give a summary of their presentation to the master teachers during a monitoring meeting prior to the seminar for trainees. This provided an opportunity for master teachers to become aware of what trainees were expected to do in the practicum and prepared them to be of greater assistance.

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*This was particularly apparent when top level university administration visited classrooms. From their post-visit comments it became apparent that they had not been sensitive to what was occurring in the laboratory school classrooms.

In keeping with the philosophy of the project (see Appendix Q), each of the eight classrooms offered unique opportunities for learning. Some of the most meaningful learning was provided in these practicum settings in the implementation of curricula which were conceived by the various teams working in those classrooms (see Appendixes B,C,D,E, and F).

A scheduled time of major significance for trainees and staff was the planning block of two hours on Wednesday afternoons when children were excused from school early to permit the staffing of children. This provided the opportunity for a team which included the five regular adults in each classroom (master teacher, experienced teacher trainee, aide trainee, full-time aide, and student teacher) and invited consultants from the university and community to consider the needs of particular children and to plan curriculum. Teams operated with varying degrees of efficiency; however, of most significance was the opportunity offered for aides, teachers, and consultants to share ideas and challenge one another in their individual perspectives. The contribution of aides in many cases were valued as much as the contribution of the "certified authority."

At times some university staff members were dissatisfied with the teaming format. This dissatisfaction was reflected in their absence from many of the meetings to which they were invited. However, several other university staff were delighted in the meaningfulness of the staffing process. The degree to which time spent in teaming was worthwhile for individuals and the group was to some extent dependent on their ability to correlate their proficiencies to needs of children, but to a greater extent on their ability to work with divergent types of individuals in the group.

Doctoral candidates in counseling from the Department of Psychology were used extensively in working with children and to some extent in assisting adult team members to work together more effectively. These activities provided an excellent setting for training and were appreciated a great deal for the service which was rendered.

The laboratory school provided an ideal setting for micro-teaching activities. An adequate supply of adults in each classroom permitted the absence of one adult and several children for engagement in video-taping. A mini-course on improving techniques of questioning (produced by the Far West Regional Lab) was completed by six experienced teacher trainees. They were all enthusiastic about the opportunity for nonthreatening feedback on their own teaching techniques. A major problem in the administration of this program

was the scheduling of video-tape recording (VTR) equipment (e.g., it took six weeks for the six people involved to complete mini-course one when they had the VTR available for use every morning prior to twelve o'clock noon). If the VTR equipment is operating in a reliable fashion, and interruptions in the children's programs (e.g., field trips, films, speakers, etc.) are at a minimum, as many as twelve people may be able to complete a mini-course in six weeks when only mornings are used. Attempts to process a larger group with one VTR would be unrealistic.

The laboratory school staff, in cooperation with other members of the Department of Elementary Education, are in the process of developing a tool (see Appendix R) for monitoring the progress of individual students in "Basic Reading Skills and Concepts." This instrument is being used on a trial basis as a means of monitoring the progress of each child where there is wide variability in each classroom. It was designed to be useful for any one (or combinations of the various) approach(es) to the teaching of reading, recognizing that different individuals will learn more effectively by different approaches according to individual needs, interests, and abilities.

F. Evaluation

Several tools were developed, adapted, and/or adopted during the project. Some of the data accumulated through their use are presented in Appendix A. Summaries of findings in various areas are that:

1. The progress of children (handicapped and more typical) at the laboratory school in self-concept and achievement continues to be average or above for their respective groups in spite of the integration of handicapped into the regular classroom, and the inception and evolution of an EPDA project.

2. Trainees (experienced teachers and educational aides who participated in the project on-site program for eighteen weeks):

   a. maintained enthusiasm for the major themes emphasized in the project goals.
   b. all completed the total eighteen weeks of participation.
   c. tended to become less defensive and have enhanced self-concepts, but not to a statistically significant degree.
   d. achieved significantly higher posttest than pretest scores on the Minnesota Teacher Attitude Inventory (MTAI) as a measure of the educator's appreciation for the importance of the child's role in his own learning.

e. achieved significantly higher scores on a posttest of knowledge of the characteristics of special education children than on the pretest.
f. were employed after completion of on-site participation at a rate of eighty-seven percent in both teacher and aide groups, as compared to eighty-one percent of the teachers and sixty-seven percent of the aides from the previous year.

3. Institutional change can be perceived in the occurrence of several events which have occurred concurrently with project efforts but may partially be the result of other influences. Some of these evidences are:

a. greater accomodation for the needs of divergent types of adults and children, especially in the USU laboratory school.
b. earlier and more intimate contact between university students and pupils in a context of several models for teaching, exposure to varied philosophies, and more adequate materials for meeting the needs of handicapped children.
c. involvement with community minority groups, parents of pupils, extension agents, and the State Board of Education.
d. curriculum changes at the university which promote the exposure of university students to handicapped children, the training of aides, and early childhood education.

Other findings were that:

4. Experienced teacher trainees manifested increasingly greater individualizing kinds of behaviors at each monthly interval while in training and did not significantly regress from that level after they had been employed in naturalistic settings for a four-month period.

5. Relationships with participating districts are excellent. (See Appendixes N and O.) Requests for placement of trainees in the program for the coming year has exceeded the capacity of the program as it is currently functioning.

6. A combination of seminar and practicum activities was most conducive to gains on knowledge, attitude, and self-concept tests. Practicum involvement by itself by student teachers did not produce significant gains in any area. Practicum involvement by aides who did not participate extensively in the seminar produced score gains in the desired direction but not of significant magnitude and/or consistancy to be statistically significant.

7. Aides who participated in the seminar and practicum during the second eighteen-week training block gained significantly more on a knowledge of special education test than any other group (experienced teachers, full-time aides, or student teachers). Aides during the first eighteen-week block gained a comparable amount but not significantly more than the teachers for the same block. The reason for less gain by teachers in the second block is unknown.

8. Psychometric evaluation of trainee progress on a monthly basis was too frequent and created resistance from trainees. With the exception of the MTAI, standardized tests were not sensitive enough (or changes were not great enough) to reflect significant average score changes for the group on less than a three-month basis. Scoring, compilation, and analysis of pretest to posttest data on other than a superficial idiographic basis were impractical for periods of time shorter than a complete eighteen-week training block.

9. Lack of similarity of situations within various participating districts makes it unwise to draw conclusions from comparisons of objective data on the performance of children under the guidance of trainees in respective areas. Generally trainees have been given a disproportionately high share of special education children, and virtually every district is using aides in different ways to best accommodate the needs of children in that district. One evaluation (see Appendix G) indicates that the desirable impact of project-trained people is greater on younger children than older children. The adaptability on the part of trainees to work in various ways is most encouraging. Evaluation within the context of each district appears to be most promising for the attainment of reliable and valid data at this time.

III. Conclusions

The most significant outcome of the project to date has been the impact which it has had on the Edith Bowen Laboratory School staff as members of the Department of Elementary Education at Utah State University. This is reflected in their:

1. increased competancies in working with handicapped children in the regular classroom.
   a. acceptance of individual and cultural differences.
   b. awareness of materials available.
   c. facility at using outsiders as resources.
   d. graceful manner of adapting to fluctuating situations.
   e. proficiency at record keeping in order to meet individual differences.
2. increased effectiveness as facilitators of learning for adult learners of all types -- from pupils as assistants to university professors as colleagues.

This achievement is fundamental for future years in the project and thereafter in promoting multiplier effects.

The greatest impact on the university other than noted above is through course changes which have been initiated. These will promote (1) earlier contact with children for prospective educators, (2) increased emphasis on early childhood education, (3) training for paraprofessionals and the use thereof, and (4) increased emphasis on special education in the regular elementary and secondary teacher education programs.

The greatest impact on participating institutions can be seen in school districts with which the project has worked. Administrators and teachers are using human resources including paraprofessional aides in unique and desirable ways. These districts are also now much more aware of many other resources such as the State and local Special Education Media Centers, and the availability of assistance through extension services for enhancing programs of inservice training. The project has been instrumental in refocusing education on the individual child. Other inroads have been made in working with the local migrant council, the State Board of Education, and other programs which strive to more adequately serve the disadvantaged. (See Appendixes M,N,O,P, and S.)

The laboratory school setting and its enthusiastic staff have undoubtedly been the greatest asset for attaining project objectives. Opportunity has been provided for the seminar and practicum activities to be effectively correlated. Innumerable resources in staff and materials have been available through the university. This has provided an opportunity for interdisciplinary and multi-perspective approaches which have been mutually beneficial to all who have extended themselves to be involved. The effectiveness of the laboratory school format is being attested to by its current status as a model education center for the state and the accelerated number of inquiries which have been made by correspondence and/or through personal visits.

Some difficulty has been experienced in obtaining support and commitments from a small minority of professors within the Department of Elementary Education. These individuals have generally been less involved in the planning and the process of project activities and have expressed their allegiance to other priorities. A second short-coming in the project has been the difficulty of maintaining contact with some districts (which have participated in the project) due to distance from the project and lack of concentration of personnel at any one location. This was precipitated in one case by saturation with trained aides which reduced the opportunity for continued contact through new trainees. Steps have been taken to alleviate these problems by reducing the number of aides in the program and attempting to work with districts closer to the project site or where trained personnel can be employed in closer proximity to one another.

In summary, (1) children who have felt the impact of the project at the laboratory school or in participating districts are getting more individualized attention which has served to maintain, if not enhance, self-concepts and achievement, (2) trainees have gained an awareness of many resources in themselves and in their environments for working with the cultural and individual differences among themselves and their students, and (3) institutional change to more humanistic education has occurred through curriculum changes, inter-departmental activities, inter-institutional contacts, and community involvement.

APPENDIX A

Evaluation
by Bruce L. Arneklev
Project Research Coordinator

This appendix will outline much of the objective data which were drawn during this the first year of a three-year extension of a project implemented to explore ways of preparing personnel to work with handicapped children in the regular classroom. In order to gather and objectify these data several tools were developed, adapted, and/or adopted for formative and summative evaluation. Some of the rationale and research behind these tools will be presented in the context of findings derived and implications which have been raised.

The first section of this appendix (On Children) is a continuation of evaluation initiated in the previous year. Data from that year have been published by ERIC in a document labeled ED 043 598 and will be referred to occasionally in the narrative. In this section, as in the previous report, data are presented separately to indicate the progress of handicapped and more typical children respectively, even though the two groups were integrated into the same classrooms.

The second section (On Trainees) focuses on psychometric results attributable to the project's effectiveness. Inasmuch as the performance objectives specified in the proposal were oriented to this area of concern, they will be used as an outline for this section. Data are presented in respect to each performance objective in turn, and some additional data are presented to illustrate results not specifically covered by objectives.

The third section (On Institutional Change) is written in response to some of the commitments made during the negotiation phase after the initial proposal had been submitted. Accomplishments indicated are primarily related to the university aspects of "institutional change" while projections are for a more inclusive definition of institution to include parents, public schools, community action, and mental health groups.

On Children

Personnel who are being trained to work with handicapped children in the context of the regular classroom should become more proficient in assisting those types of children to profit from the process of education. Popular jargon would indicate that they should in some way be held "accountable" for the progress of the children in their charge. Yet, some recent literature indicates that even for more typical children the implementation of programs to demonstrate accountability through pupil

performance is less practical in operation than in theory because of several reasons which are often overlooked.[1,2,3] In spite of these short comings, however, achievement tests remain as one of the best criterion available for monitoring programs.

The purpose of presenting these data is not to prove the superiority of a particular method, but rather to provide some evidence that those methods have not been detrimental to the best interests of children during experimental stages, and to elaborate on some ways to improve monitoring procedures. Any presumption that these data will support or detract from a particular methods appropriateness in meeting the needs of handicapped children in naturalistic settings is unfounded.* The data presented here were drawn from children in the laboratory school where personnel are being trained. This setting is not representative of many other settings if for no other reason than the continual involvement of different groups of trainees. The data are most useful in answer to questions about the desirability of implementing training programs at sites where children can provide realism.

A. Achievement

Table I contains average grade equivalent (GE) and grade equivalent gain (GEG) attained on the Metropolitan Achievement Test (MAT) by children (who were classified as eligible for placement in learning adjustment classes) during the current project year.

INSERT TABLE I HERE

From data presented in Table I it may be seen that children integrated into regular classrooms from learning adjustment classrooms (classes for the emotionally disturbed) did not gain a full year in most areas on the MAT. However, it is of note that test scores were available for two consecutive years for the twelve children depicted here.

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[1]J.A. Mecklenberber and J.A. Wilson. "The performance contract in Gary," Phi Delta Kappan, LII (March, 1971), 406-410.

[2]J.E. Motzkus. "Accountability and the reverend dogood." Todays Education, LX (March, 1971), 57.

[3]R.T. Lennon. "Accountability and performance contracting." An address at the American Education Research Association Annual Convention February 5, 1971. (available on tape from AERA.)

*For performance of children in naturalistic settings under the guidance of personnel trained through this EPDA project, see Appendix G.

TABLE I

Academic Progress of Learning Adjustment Students
Who are now Integrated into Regular Classrooms

(Metropolitan Grade Equivalent Achievement Scores)*

		Word Knowledge			Reading			Spelling			Arithmetic		
Grade	Child	1969	1970	1971	1969	1970	1971	1969	1970	1971	1969	1970	1971
2	1		1.0	1.6		1.7	1.8					1.0	1.7
2	2		1.4	1.9		1.5	2.0					1.0	1.7
2	3		1.1	1.7		1.5	1.5					1.1	2.2
2	4		1.2	1.7		1.6	1.0					1.0	1.2
3	5		2.1	4.0		2.2	3.7		1.9	3.1		3.4	4.3
3	6	1.6	2.2	3.2	1.6	2.3	4.4		2.1	3.6	1.8	2.4	3.5
4	7	4.6	5.4	5.7	4.2	4.7	5.5	4.9	5.5	6.8	3.3	4.3	4.5
4	8		2.7	3.6		2.7	2.6		2.3	3.1		2.8	3.1
4	9		2.9	2.8		2.4	2.8			1.8		2.2	2.5
4	10		5.1	6.1		3.1	6.8		2.6	4.7		2.3	3.6
5	11		5.9	5.8		7.2	8.0		4.6	4.2		4.6	5.4
5	12	2.2	2.7	3.4	2.4	2.8	3.3		2.2	3.4	2.8	3.1	3.5
			33.7	41.5		33.7	43.4		21.2	28.9		29.2	37.2
$\bar{X}$ GE			2.81	3.46		2.81	3.62		3.03	4.13		2.43	3.10
$\bar{X}$ GEG (71-70)			.65			.81			1.10			.67	
Significance of Gain			t = 2.73 p .02			t = 2.55 p .05			t = 3.19 p .05			t = 2.27 p .05	

* 1. Achievement tests were administered at academic grade level +.7.
2. Scores were not available in blank areas.

(Four additional children were classified for learning adjustment placement, but are not represented here because pretest information was not available due to their attendance at other schools during the previous year.) Prior to the integration of these children into the regular classroom, there was seldom comparable achievement data available even though the state required a reading and arithmetic achievement score on each child. Whether this homogeneous criterion of achievement scores is appropriate for all children placed in a particular category is another question, but it is significant that these children are now completing standardized group achievement tests along with more typical children. None of the tests were thrown out as unscorable, and a descriptive body of data is accumulating for the future evaluation of the progress of these children.

Table II contains average GE and GEG attained on the MAT by all of the more typical children who have been at the laboratory school since the first grade, or for three or more years if they were in upper grades.

INSERT TABLE II

From Table II it may be seen that the progress of more typical children where handicapped children are now integrated has remained relatively constant in spite of the integration of the handicapped and the inception of an EPDA project. This conclusion is drawn from the average GEG obtained by the upper three grades in the laboratory school over the past three years. The group is used as its own control group to insure comparability. (That is, only those children that had scores available for the past four years were selected. This biases the sample to the extent that it eliminates individuals who move in and out during that period of time, but it insures that the same individuals are represented in each of the four years.)

Tables III, IV, V, and VI contain a breakdown of data in Table II into subject matter areas, and add progress in the area of spelling by more typical children.

INSERT TABLES III, IV, V, AND VI

From Tables III, IV, V, and VI it may be seen that there is considerable variability between grade level and subject matter areas as to the achievement of children. These fluctuations are a function of several factors which should be considered whenever achievement test results are used to evaluate programs. Some of these factors are:

1. number and type of handicapped children in a particular classroom.
2. number and type of more typical children in a particular classroom.
3. emotional and physical stability of trainees in a particular classroom.
4. interests and abilities of trainees in a particular classroom.

TABLE II

Composite (Reading, Word Knowledge & Arithmetic) Achievement of all Regular Students at the Laboratory School (Grade Equivalent & Grade Equivalent Gain)*

By Grade Level (Horizontal) and Year (Diagonal)

Grade Placement 1970-1971	When in Respective Grades											
	1		2		3		4		5		6	
	GE	GEG	GE	GEG	GE	GEG	GE	GEG	GE	GEG	GE	
1 (N = 31)	1971 2.46											
2 (N = 28)	1970 2.38	1.32	3.70									
3 (N = 21)	1969 2.50	1.15	2.65	1.27	4.92							
4 (N = 15)	1968 2.45	.92	3.37	.93	4.30	.92	5.22					
5 (N = 19)	1967 2.28	1.17	3.45	.98	4.43	.91	5.34	1.34	6.68			
6 (N = 16)			3.39	1.32	4.71	1.26	5.97	1.39	7.36	1.07	8.43	

Average GEG of members of grades 4-6 in each of their past three years at the laboratory school. (N = 50)

1.11 (1971)

1.08 (1970)

1.05 (1969)

1968

1967

* 1-Metropolitan Achievement Tests were administered at academic grade level +7 years
2-Scores presented do not include scores of special education students who are now integrated.

TABLE III

Reading
Grade Equivalent and Grade Equivalent Gain

By Grade Level (Horizontal) and Year (Diagonal)

Grade Placement 1970-1971		When in Respective Grades 1 GE	GEG	2 GE	GEG	3 GE	GEG	4 GE	GEG	5 GE	GEG	6 GE
1 (N = 31)	1971	2.42										
2 (N = 28)	1970	2.35	1.42	3.77								
3 (N = 21)	1969	2.45	1.25	3.70	1.32	5.02						
4 (N = 15)	1968	2.48	.86	3.34	1.27	4.61	.77	5.38				
5 (N = 19)	1967	2.15	1.38	3.53	1.28	4.81	.62	5.43	1.74	7.17		
6 (N = 16)				3.36	1.22	4.58	1.38	5.96	1.51	7.47	.97	8.44

Average GEG of members of grades 4-6 in each of their past three years at the laboratory school. (N = 50)

1971 → 1.19
1970 → 1.13
1969 → 1.17
1968
1967

TABLE IV

Word Knowledge
Grade Equivalent and Grade Equivalent Gain

By Grade Level (Horizontal) and Year (Diagonal)

Grade Placement 1970-1971	When in Respective Grades											
	1		2		3		4		5		6	
	GE	GEG	GE	GEG	GE	GEG	GE	GEG	GE	GEG	GE	
1 (N = 31)	1971 2.31											
2 (N = 28)	1970 2.31	1.32	3.63									
3 (N = 21)	1969 2.49	1.17	3.66	1.60	5.26							
4 (N = 15)	1968 2.27	1.04	3.31	1.22	4.53	.98	5.51					
5 (N = 19)	1967 2.21	1.18	3.39	1.09	4.48	.94	5.42	1.72	7.14			
6 (N = 16)			3.16	1.58	4.74	1.31	6.05	2.23	8.28	.84	9.12	

Average GEG of members of grades 4-6 in each of their past three years at the laboratory school (N = 50)

1971 > 1.18
1970 > 1.46
1969 > 1.15
1968
1967

TABLE V

Arithmetic*
Grade Equivalent and Grade Equivalent Gain

By Grade Level (Horizontal) and Year (Diagonal)

Grade Placement 1970-1971	When in Respective Grades 1 GE	GEG	2 GE	GEG	3 GE	GEG	4 GE	GEG	5 GE	GEG	6 GE
1 (N = 31)	1971 2.65										
2 (N = 28	1970 2.49	1.21	3.70								
3 (N = 21)	1969 2.57	1.02	3.59	.90	4.49						
4 (N = 15)	1968 2.59	.88	3.47	.30	3.77	1.00	4.77				
5 (N = 19)	1967 2.48	.95	3.43	.55	3.98	1.20	5.18	.56	5.74		
6 (N = 16)			3.66	1.14	4.80	1.09	5.89	.44	6.33	1.38	7.71

Average GEG of members of grades 4-6 in each of their past three years at the laboratory school (N = 50)

> .98 (1971)
> .65 (1970)
> .84 (1969)

1971 1970 1969 1968 1967

* Average of computation and problem solving/concept scores used in grades 3-6

TABLE VI

Spelling
Grade Equivalent and Grade Equivalent Gain

By Grade Level (Horizontal) and Year (Diagonal

Grade Placement 1970-1971	When in Respective Grades 1 GE	GEG	2 GE	GEG	3 GE	GEG	4 GE	GEG	5 GE
1 (N = 31)									
2 (N = 28)	1971 3.70								
3 (N = 21)	1970 3.43	1.48	4.91						
4 (N = 15)	1969 3.01	1.49	4.50	.57	5.07				
5 (N = 19)	1968 3.19	1.11	4.30	1.31	5.61	1.57	7.18		
6 (N = 16)	1967 3.08	1.70	4.78	1.36	6.14	.16	6.30	1.49	7.79

Average GEG of members of grades 4-6 in each of their past two years at the laboratory school (N = 50)

1.53

.74

1.23

1971 1970 1969 1968 1967

5. variations in emphasis toward relevant aspects of curriculum by various levels of the Metropolitan Achievement Test.
6. appropriateness of test content (e.g., arithmetic sub-tests are outdated, but retained for the contextual data which are available in other areas where the content sampled is more representative).
7. ceilings on achievement tests retricting the reported gains of some students.
8. the degree to which many children in the laboratory school are significantly above or below their grade level placement.
9. various types of curricula utilized in varying degrees in different classrooms.
10. proficiency of different instructors in using various curriculum methods.
11. commitment of different instructors to using various curriculum methods.
12. distraction imposed by the project in requiring some instructors to be out of the classroom for various reasons (e.g., meetings and/or follow-thru visits).
13. the interaction of any or all of the factors listed above.

Achievement gains printed in tables above should be indicative of gains which have been cumulative. That is, each year's level of attainment is used as the base for calculating gain to subsequent years. If a particular student or group of students functions below capacity in one year, that score would produce a low gain during that particular year, but during the next year he (they) would have the opportunity to "redeem" this relatively poor showing because the score for ending one year is used for beginning score of the next year. This process would work in reverse if a particular teacher had "taught the test" one year, serving to inflate scores. Those students would have to continue to "excel" to maintain a constant rate of academic gain over a series of consecutive years.

Granted the problems which are inherent in maintaining a representative sample when transient students are not represented, this procedure of using the end of one year's scores as the base for the next year's computation holds some merit for performance contracting. It precludes some of the shortcomings which are inherent in more typical pre/post test designs.

Room for speculation has been generated by a parallel administration of the California Test of Basic Skills (CTBS) with the Metropolitan Achievement Test (MAT). (Results of only the MAT are depicted in the previous tables.) The MAT was administered only in the spring using scores from the previous spring as the foundation for computing gain. The CTBS was given in the fall and again in the spring in a more customary design. An average grade equivalent gain (GEG) of .9 was reflected for the class by the MAT while an average GEG of 1.3 was reflected by the CTBS. The amount of discrepancy between these two instruments and testing procedures would make a considerable financial difference if the school were under a performance contract to pay a contractor in proportion to student gain. Follow-up testing with the CTBS next fall of the group who reflected the average gain of 1.3 will indicate how much regression might occur over the summer. If regression does

occur it will be suggestive of limitations that are inherent in paying for gains which have been obtained from a point immediately before to a point immediately after the implementation of the educational treatment.

B. Self-Concept

Assessment of self-concept changes was conducted in the same manner as achievement, i.e., the end of school year tests from a previous year were used as the pretest for computing gain to the end of the current year posttest.

Table VII contains the average self-report scores and changes of scores that occurred on the Piers-Harris Self-Concept Scale during the project year by grades four, five, and six.

TABLE VII

Piers-Harris Children's Self-Concept Scale Scores

Grade level	4	5	6
Number of students	15	19	16
Average Raw Score (post)	65.6	64.4	62.9
(pre)	64.9	64.5	61.4
Change of Score	+.7	-.1	+1.5
Significance of Change	n.s.	n.s.	n.s.

From Table VII it can be seen that there was not a significant change in self-report scores during the project year. Reference to the Piers-Harris manual indicates that all of these average scores fall above the sixty-ninth percentile.

Continued concern expressed over the legitimacy of various self-concept assessment methods[4] promotes reflection in the context of this and other monitoring of programs which seek to enhance the self-concept.

During the course of this project several attempts were made to illuminate problems in assessment which have previously been raised.[5, 6]

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[4]Perry A. Zirkel. "Self-Concept and the disadvantage of ethnic group membership and mixture," Review of Educational Researc.., XLI (June, 1971), 211-226.

[5]B.L. Arneklev. "The use of defensiveness as a covariate of self-report in the assessment of self-concept among Navajo adolescents." (unpublished Ed.D. dissertation, Utah State University, Logan, Utah, 1970).

[6]A.W. Combs, D.W. Soper, and C.C. Couison, "The measurement of self-concept and self-report," Educational and Psychological Measurement, XXIII (mo, 1963), 493-500.

The lack of relationship which is typically found between self-report scores and teacher inferred self-concept was of particular concern, i.e., correlations between self-report scores by children and inferred self-concept scores from their teachers are typically too low in magnitude to be accepted as statistically greater than zero. Unless this lack of consistency can be explained, the validity of either method for assessing self-concept and its change is questionable.

During the project year an attempt was made to clarify the meaning of self-report scores of self-concept. In one class a correlation of -.55 was obtained when self-report scores were correlated to scores from teachers who had inferred self-concept from the behavior of learning adjustment children. In the same class a correlation of .69 was obtained between self-report scores of self-concept and defensiveness scores. From this and literature cited above, a design was implemented to test the hypothesis that the correlation between self-report scores and teacher inferred self-concept scores could be improved if scores for defensiveness were subtracted from self-report scores. The hypothesis had to be rejected because the correlation was slightly, but not significantly, improved in the group of learning adjustment children within which the design was implemented. A conclusion was drawn from this study that factors other than self-report must be considered before level of self-concept can be adequately assessed. This conclusion seemed particularly germane when the self-concepts of disadvantaged children are under consideration.

C. Conclusion on Children

Limitations imposed by the current state of the art in testing make conclusions less tenable than is desired. This is particularly true in the evaluation of the effectiveness of programs for the handicapped. Tools used tend to raise new questions rather than solidify answers.

In spite of these short comings, self-concept and achievement data from both the handicapped and the more typical indicate that comparable if not enhanced performance is being maintained under experimental conditions imposed by the program to train personnel to work with handicapped children in the regular classroom. Validity is attributable to this conclusion by subjective observations made in the classrooms.

On Trainees

The primary focus of the project was on trainees and their progress. Thus, performance objectives were directed to that end in the proposal and will be used here as an outline. Data drawn and discussion of implications will be advanced within the context of each respective objective.

Testing occurred on at least three occasions during the on-site training of each group of trainees. This schedule provided pretest, interim monitoring, and posttest data. The data were initially analyzed by four parallel groups (experienced teacher trainees, paraprofessional aide trainees, full-time aide trainees, and student teachers) during each of two eighteen-week training cycles. A control group of student teachers from the regular Utah State University training program was also tested for comparison purposes. Initial results indicated that the project was having the

greatest impact on the trainee groups for which the project was specifically designed, i.e., experienced teachers and paraprofessional aides. Individuals from these two groups were involved in both the practicum and the afternoon seminars. Individuals from two of the other groups, full-time aides and student teachers, were generally not involved in the seminar while the control group was not exposed to either the practicum or seminar of the project.

An ideographic perusal of test data from individual participants revealed a plethora of considerations which must be taken into account. Averaging score changes within teams to assess team effectiveness did not mask the extent to which interacting variables can serve to confound test results. The combination of the two sub-groups (experienced teacher trainees and paraprofessional aide trainees) of the primary target group are therefore used in most of the depictions which follow. Where differences between sub-groups were noteworthy, these will be considered in turn.

A. Performance Objectives

1. Trainees (experienced teachers, student teachers, and instructional aides) in the EPDA project will develop increasingly positive values (the connotative, emotional and/or affective aspect of attitudes) toward working with exceptional children in the regular classroom, team teaching, teacher aides, community control, and parental involvement as measured by semantic differentials designed for the respective areas.

2. Trainees will develop increasingly positive beliefs (the denotative rational and/or cognitive aspect of attitudes) about the reasonableness of educating exceptional children in the regular classroom, team teaching, teacher aides, change in education, community control, and parental involvement as measured by semantic differentials, designed for the respective areas.

Objectives one and two will be considered together inasmuch as they were each assessed by a separate part of the same instrument, and results related to them are comparable. The instrument used was a semantic differential which was initially used in a previous year but expanded to cover the areas of parental involvement and community control.

The semantic differentials used were developed on the basis of research by Fishbein[4], Raven, and Osgood[5]. Research by Fishbein has demonstrated that there are two accessible dimensions of attitude: a "probability" --- cognitive or rationale/denotative dimension, and an "evaluative" --- affective or emotional/connotative dimension. The

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[4]M. Fishbein and B.H. Raven. "The AB Scales: An operational definition of belief and attitude, "Human Relations, XV (1962), 35-44.

[5]C.E. Osgood, G.H. Suci, and P.H. Tannenbaum. The measurement of meaning, Urbana, Illinois: University of Illinois Press, 1957.

cognitive dimensions of attitude toward the themes of major project goals can be rated on the polar descriptive terms: feasible-unfeasible, possible-impossible, probably-improbable, and likely-unlikely. The affective dimensions of attitudes toward themes of major project goals can be rated on the polar descriptive terms: beneficial-harmful, wise-foolish, good-bad, and valuable-worthless. The cognitive dimension is viewed as what could be done while the affective dimension is viewed as what should be done. Taken together they are indicative of the general enthusiasm which an individual holds for a concept or situation -- in this case, themes of major project goals.

Identification and assessment of the cognitive and affective dimensions of attitude have demonstrated utility in serving as partial predictors of behavior in the situation rated. Thus, promotion of positive attitudes in regard to the major goals of the project is accepted by many evaluators as an appropriate criterion for both formative and summative evaluation.

These semantic differentials were scored on the basis of a scale score from 1 to 11 with 6 points being given for a neutral response. A total of four scales are used for each dimension (cognitive and affective) on this instrument. Thus, the maximum score attainable on each dimension is 44. Experience, to date, has indicated that the magnitude of scores on the two scales for any one individual has been relatively congruent. Also, for the trainees selected and the goals rated, scores have been relatively high. This has been interpreted as an indication of general enthusiasm. This is a desirable pattern from a program operation standpoint, but it degrades correlations for reliability and validity which are a function of the variability manifested in test scores. Attempts to extend the range on the upper end to increase variability have been unsuccessful to date with trainees, however, the instrument is still judged to be very useful for the detection of loss of general enthusiasm.

Table VIII contains data about affective (A) and cognitive (C) aspects of trainee attitudes toward the themes emphasized by the project as measured by semantic differentials.

INSERT TABLE VIII HERE

From Table VIII it can be seen that attitudes held by trainees changed significantly in only one instance during their involvement. This may be indicative of attitudes and beliefs being relatively resistant to change, and/or the relative lack of impact made by project involvement. It is of note that the highest score possible on these semantic differentials is 44, with a neutral score being 24. According to this range of possibilities, all scores were relatively positive, with several individuals scoring at the ceiling of the instrument. Maintenance of these positive scores in the context of exposure to many new and challenging experiences, regression effects, and uncertainty as to generalizability may be interpreted as encouraging.

TABLE VIII

Affective (A) and Cognitive (C) Aspects of
Trainee Attitudes
Toward Themes Emphasized in the Project

Scores from First Group of Trainees (Sept - Jan) (N = 16)	Educating exceptional children in the regular classroom		Team teaching		Teacher aides		Change in education		Community control		Parental Involvement	
	A	C	A	C	A	C	A	C	A	C	A	C
$\bar{X}$ pretest	35.3	36.6	39.8	39.3	41.5	38.3	38.3	39.5	26.3	31.0	36.8	36.3
$\bar{X}$ posttest	37.6	37.7	40.0	39.1	41.8	39.0	36.0	38.0	23.6	26.1	37.3	35.1
Difference	+2.3	+1.1	+0.2	-.2	+.3	+.7	-2.3	-1.5	-3.7	-1.9	+.5	-1.2
Scores from Second Group of Trainees (Jan - May) (N = 16)												
$\bar{X}$ pretest	34.6	36.6	37.4	38.7	40.4	39.7	35.9	37.6	23.4	26.2	36.3	35.3
$\bar{X}$ posttest	34.4	33.9	38.4	38.1	40.1	39.1	37.2	36.2	30.4	30.0	36.6	36.8
Difference	+.8	-2.7	+1.0	-.6	-.3	-.6	+1.3	-1.4	+7.0*	+3.8	+.3	+1.5

*(t = 2.19) The probability is less than five out of one hundred that this change occurred by chance. (t's of greater than 1.75 and 2.60 are required for a difference to have occurred by chance less the five times and one time in one hundred respectively.)

3. The self-concepts of trainees will become higher (P. is less than .05) through the EPDA Project, as measured by pre- and post-project tests with the Tennessee Self-Concept Scale (TSCS).

The construct of self-concept, as a relatively stable phenomenon in people, may be selected as an appropriate foundation upon which to develop the educational prowess of each trainee, whether that person was an aide or a teacher. Self-theory indicates that the individual's concept of himself is highly influential in behavior and is directly related to one's state of mental health. The pressures and uncertainties in education, and especially special education, make the enhancement of self-conceptual structure a germane consideration in the training of educational personnel.

Selection and interpretation of tools which purportedly measure this construct becomes a task that warrants a great deal of study. The theory is quite useful for conjecture, but its assessment in terms of a score can be misleading when individuals within heterogeneous groups are to be compared. Coopersmith[6] notes that self-esteem is a function of successes, ideals, aspirations, and defenses. The operation of these factors in various ways can serve to confound self-concept results.

Soares and Soares[7] have provided references to several sources which indicate that disadvantaged children are not characterized by deficiencies in self-concept when self-report scores are used as a criterion. This empirical evidence should serve as a caution to evaluators who assume that self-concept is that which is measured by self-report instruments which purport to measure self-concept. Consideration of confounding variables in the measurement process must be made if prevalent theoretical notions about the desirability of improving self-concept are to be maintained in the face of this evidence. Certainly this evidence eliminates the validity of a criterion-referenced objective "to bring all subjects up to average or above."

Even measured gains in self-report scores from pretest to posttest cannot be accepted without qualification. Arneklev[8] has demonstrated that defensiveness can systematically serve to distort self-report scores.

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[6]S. Coopersmith. The antecedents of self-esteem (San Francisco, W.H. Freeman and Company, 1967).

[7]T. Soares and M. Soares. "Critique of Soares and Soares' 'Self-perceptions of culturally disadvantaged children' -- A reply." Amer. Educ. Research J. VII (Nov. 1970), 631-635.

[8]B.L. Arneklev. "The use of denfensiveness as a covariate of self-report in the assessment of self-concept among Navajo adolescents." (unpublished Ed.D. dessertation, Utah State University, Logan, Utah, 1970).

(i.e., the more open the individual is to self-criticism the lower his self-concept scores are likely to be). Thus, if learners become more (or less) defensive as a result of their experience in a program, their scores on a self-report instrument are susceptable to inflation (or deflation) because of this test=taking set.

The TSCS allows for monitoring of "openness of self-ciriticism" by a group of items which are integrated into the self-report format but are scored independently from scales for self-concept. The TSCS can therefore be relied upon for a more inclusive picture of the construct of self-concept.than most self-report scales which are currently available.

Table IX contains data from the TSCS as to self-concept and self-criticism among trainees.

TABLE IX

Self-Concept and Self-Criticism of Trainees

		Self-Concept	Self-Criticism
Scores from First Group of Trainees (Sept - Jan) (N = 16)	$\bar{X}$ pretest score	361.6	34.8
	$\bar{X}$ posttest score	367.9	35.9
	Difference	+6.3 (t=.79 & n.s.)*	+1.1 (t=.78 & n.s.)*
Scores from Second Group of Trainees (Jan - May) (N = 16)	$\bar{X}$ pretest score	337.1	33.4
	$\bar{X}$ posttest score	333.4	34.6
	Difference	-3.7 (t=.88 & n.s.)*	+1.2 (t=1.4 & n.s.)*

*A t of greater than 1.75 is required for this difference to have occurred by chance less than five times in one hundred.

From Table IX it may be seen that changes in self-concept and self-criticism as measured by the TSCS did not reach significance at the .05 level. Within the first group changes in both scores were in the desired direction, but were not of sufficient magnitude and/or consistency to reach statistical significance. Standard deviations for self-concept within that group were 29.6 and 30.7 respectively on the pretest and post-test. Yet, the correlation between the scores for the two testing periods was only .40. This low correlation in spite of hign variance reflects the high degree of up and down change of scores among individuals within that group. Familiarity with individuals and their personal situations served to partially substantiate the erratic condition which is reflected by these data.

Within the second group scores and score changes were more typical and a smaller average change in score was more highly significant, although not at the .05 level. The attainment of less erratic scores is indicated by a reliability correlation of .78 between pretest and post-test self-concept scores in the second group.

In both groups the average trainee score reflects attitudes which were more open to self-criticism or less defensiveness. Standard deviations on the self-criticism scale were less than one-fifth of the magnitude of those reflected on the self-concept scale causing t scale values to appear relatively large for such small gains. The practical implications of these changes are consistent with the Arneklev hypothesis (that high self-criticism scores serve to deflate self-report scores) and serve to make more positive the interpretation of project effectiveness in improving the self-concept of trainees.

4. Trainees will develop increasingly positive values of the child's role in the process of learning, as measured by the Minnesota Teacher's Attitude Inventory (MTAI).

The MTAI is a published inventory which was empirically derived to measure an individual's ability to maintain "harmonious relations" in the classroom as evidenced by (1) ability to win the affection of pupils, (2) fondness for and understanding of children, and (3) ability to maintain a desirable form of discipline. The inventory has been subjected to careful scrutiny. The earliest evidence is concisely stated in the Handbook of Research on Teaching edited by N. L. Gage in 1963. One study by Della Piana and Gage[9] indicated that teachers who scored high on the MTAI were better liked by pupils who have affective values. The increasing awareness of the importance of affective values in education, especially special education, warrants its consideration as a criterion indice. A more recent study reported by Justiz[10] gives further credence to this consideration in calling the MTAI . . . "the first reliable measure of general teaching ability (based on pupil performance in two different subject fields)." Another recent study by Yee and Fruchter[11] deliniates some additional factors measured by the MTAI and pulls together related literature.

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[9] Della G.M. Piana and N.L. Gage, "Pupils values and validity of the Minnesota Teacher Attitude Inventory," Jr. of Educational Psychology, XLVI (1955) 167-178.

[10] T.B. Justiz, "A reliable measure of teacher effectiveness," Educational Leadership/Research Supplement, III (Oct., 1969), 54.

[11] A.A. Yee and B. Fruchter, "Factor content of the Minnesota Teacher Attitude Inventory," American Education Research Jr., VIII (January, 1971), 119-133.

The MTAI tends to distribute EPDA participants over a broad range, lending to relatively high test-retest correlations as indicators of acceptable reliability. Validity can be attributed to the MTAI on the basis of rankings given to trainees by administrators during our first project year. (Three of forty-seven trainees during the 1969-1970 year received lower scores on the posttest than on the pretest; each of these persons had independently been ranked as least likely to be "... effective in educating handicapped children in the regular classroom.") Other indications of validity were found in the extent to which subjects who attained lower scores tended to accept less responsibility for taking an active role in project activities than those who gained higher scores.

The prime value of the MTAI was found in the assessment of change of score between pretest and posttest. As Dussault[12] and others have noted MTAI scores in themselves can be ambiguous. Educationally less sophisticated and culturally different trainees tend to score lower than more WASP oriented personnel, therefore its use as a screening device would be inappropriate. The magnitude of scores is not so much an indication of potential effectiveness for promoting learning as it is an indication of the frame of reference from which the individual responds to items. The relative change in score is the factor that appears to be indicative of the impact of a program; relatively higher scores after involvement in a program being indicative of taking greater responsibility for one's own learning. If teaching by example is the model for a program this instrument appears to be an appropriate criterion measure.

Table X contains data obtained from the MTAI as an indicator of attitudes changing in the desired direction among participants.

TABLE X

MTAI Scores from Trainees

Scores from First Group of Trainees (Sept - Jan) (N = 16)	X pretest score X posttest score Difference	23.6 39.4 +15.8	(t=2.62 & P<.01)**
Scores from Second Group of Trainees (Jan - May) (N = 16)	X pretest score X posttest score Difference	12.5 27.3 +14.8	(t=2.51 & P<.05)*

**A t of greater than 2.60 is necessary for a difference to have occurred less than once in one hundred times by chance.
*A t of greater than 1.75 is necessary for a difference to have occurred less than five times in one hundred by chance.

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[12]Gilles Dussault, "A theory of supervision in teacher education, (New York: Teachers College, Columbia University), 1970.

From Table X it can be seen that both groups of trainees gained approximately fifteen raw score points on the MTAI during their eighteen weeks of training at the project site. These gains were significant at well beyond the .05 level. Follow-up on participants in a previous year indicated that these gains were relatively stable and did not regress after personnel were placed in naturalistic settings for employment.

5. Trainees will demonstrate an increasing tendency to individualize their instruction as measured monthly by a behavior check list.

A behavior checklist to measure student centeredness (see Appendix L for a copy) was developed as a criterion measure on the basis of a model initiated by Axelrod from the University of California at Berkely. Axelrod's instrument, as presented at the national American Education Research Association (AERA) convention in 1969, was designed to differentiate four instructional types: the content-centered faculty member, the instructor-centered faculty member, the intellect-centered faculty member and the student-centered faculty member. Items from this inventory were adapted to a behavior checklist form, which was scored to indicate the degree to which the trainees focused on the student as a whole, rather than the first three elements of Axelrod's instructional types. From this context the extent of student centeredness is used as a measure of individualization.

This is selected as an appropriate criterion from a standpoint of a philosophy that views each child as a unique human being who must be personally involved in the learning situation. This point of view seems especially appropriate in the case of the handicapped child, who has generally met failure in the more traditional modes of education.

The instrument can readily be used to assess areas of curriculum which warrant greatest emphasis. It may assist in directing attention to these areas, and it can be used to assess the extent to which progress is being made through the instructional process. The small number and diverse types of items on the instrument tend to contribute to low correlations as indicators of reliability and validity; therefore, conclusions about the magnitude of scores or their change should be made only with collaborating evidence. However, ease of administration and interpretation make it most useful for identifying areas that may warrant further scrutiny as an educator endeavors to make curriculum more relevant to needs felt by students.

Table XI contains data reflecting progression in average behavior checklist score as an indicator of individualizing behavior by experienced teacher trainees. These scores were derived from ratings of trainees in the practicum setting by master teachers in each of the eight laboratory school classrooms.

TABLE XI

Individualization as Indicated by Behavior Checklist Scores

		Average Score	Change	t*	significance level
Scores for First Group of Experienced Teacher Trainees (Sept - Jan) (N = 8)	average score in Oct.	13.4	+.9	1.11	n.s.
	average score in Nov.	14.3	+1.6	3.62	.01
	average score in Dec.	15.9			
Scores for Second Group of Experienced Teacher Trainees (Jan - May) (N = 8)	average score in March	11.9	+2.7	3.15	.01
	average score in April	14.6	+1.2	2.19	.05
	average score in May	15.8			

*One tailed t's of 1.90 and 3.00 with seven degrees of freedom are significant at the .05 and .01 levels respectively.

From Table XI it may be seen that behavior checklist scores for individualization did increase on a monthly basis. Items on the instrument provided a useful monitoring gauge by which to identify areas in the curriculum where stress was needed. The tool in itself also provided direction to master teachers as they attempted to evaluate the progress of trainees in their charge during the practicum period.

6. Trainees will comprehend knowledge (P. is less than .01) about the characteristics of exceptional children, as measured by a pre and post-project multiple choice examination.

A multiple choice test was constructed in cooperation with the Department of Special Education to assess the entry level for each participant in his knowledge of concepts and methods important to special education. This test was also used a a posttest to assess knowledge gained through training at the laboratory school. Results from those testings are included in Table XII.

TABLE XII

Knowledge Gained

		Teachers (N = 8)	Aides (N = 8)
Average Scores from First Group of Trainees (Sept - Jan)	pretest	34.0	21.4
	posttest	38.3	27.5
	difference	+4.3 (t=2.83 & P .05)*	+6.1 (t=1.94 & P .05)*
Average Scores from Second Group of Trainees (Jan - May)	pretest	32.5	23.6
	posttest	32.8	32.0
	difference	+.3 (t=.51 & n.s.)	8.4 (t=3.27 & P .01)**

*A greater than 1.90 is required for this difference to have occurred less than five times in one hundred by chance.

**A t greater than 3.00 is required for this difference to have occurred less than once in one hundred times by chance.

From Table XII it can be seen that each group scored somewhat higher on posttests than on the pretests. The extent to which aide trainees gained more than experienced teachers is especially noteworthy. An analysis of variance between groups indicated that aides from the (January-May) eighteen week trainee group did in fact gain significantly more than full-time aides, student teachers or experienced teachers. (F=4.29; where an F of 2.99 is necessary to be significant at the .05 level with 3 x 27 degrees of freedom.)

If this criterion measure is accepted as valid, then the combination of seminar and practicum experience appears to be most effective for aides. Practicum experience in itself, within which full-time aides and student teacher participated, was not as effective for inducing the knowledge assessed by this test.

7. Trainees will value the training they received through the EPDA project as measured by subsequent employment of 90% of the participants in occupations in education which utilize that training.

One aide and one teacher who were trained during the September to January block were not engaged in related educational activities four months later. Thus, eighty-seven percent of the trainees were engaged in activities which utilized their training. This was an improvement from the eighty-one percent rate for teacher trainees and sixty-seven percent rate for aide trainees from the previous year, but did not reach the desired ninety percent criterion.

Reasons for not using training given by teachers trained during the previous year were directed exclusively at the lack of positions where their families were located. Reasons given by aides for not working in educationally

related professions were almost equally divided between need to care for children in the family and the availability of more income from employment other than in schools.

The attainment of a ninety percent employment rate appears to be a difficult objective. Selection processes of future trainees will be one of the most important factors in its attainment. Particularly in this era when the supply of teachers is ahead of the demand in many areas, there is a need to solicit commitments from administrators to send the types of personnel for training who will remain in their area and whose service is highly desired. As the reputation of the project and its training becomes more wide spread, this requirement may become less important; but in this time of mobility and limited opportunity for employment commitments to and for post-training placement appear to be necessary.

8. Trainees will continue to apply the individualized methods which they utilized in Edith Bowen Laboratory School (to a level of 80% or more of that which they demonstrated prior to leaving the project) when they are employed in their home environment, as measured by a behavior check list.

A follow-up rating of experienced teacher trainees four months after their employment in naturalistic settings was accomplished with a behavior checklist, which had been used on a monthly basis while they received training at the laboratory school. (See objective 5 above) The average score on the follow-up rating was 15.7 while the average rating on these same individuals at the completion of their on-site training was 16.5. This represents a ninety-five percent retention of individualizing behaviors listed on the rating form. The difference between the two scores produced a t value of 1.58 which is not significant of the .05 level.

The research coordinator was most impressed at the time of follow-up by the sensitivity and conscientiousness which was expressed by the trainees in their attempt to transfer the practices advocated in the laboratory school to their naturalistic setting. For most trainees this was a difficult task because of the reduction in personnel and expertise available. The maintenance of their enthusiasm and dedication over extended periods of time will probably be contingent on continued assistance. The opportunity for those types of assistance appears to be improving through extension services, telelectures, and the concentration of trainees in specific areas where they can lend support to one another.

B. Conclusions on Trainees

1. A high level of enthusiasm was maintained throughout each of the eighteen week training periods by trainees in general. This was indicated by scores on semantic differentials and collaborated by the fact that all thirty-two of the teachers and aides who were involved for eighteen week training periods completed their training commitments.

2. Self-reports of self-concept did not increase to a statistically significant degree. However, when consideration of assessed tendencies among participants to be less defensive are taken into consideration, the extent of change in self-report scores was encouraging.

3. Trainees who participated in a combination of seminar and practicum activities had significantly higher scores on the Minnesota Teacher Attitude Inventory (MTAI) after training than before. Aides for the full year who participated less in the seminar and more in the practicum had higher posttest MTAI scores than pretest scores but not to a statistically significant degree. Student teachers who did not participate in the seminar but did in the practicum and a control group of student teachers who participated in neither the seminars nor the laboratory school practicum achieved approximately the same MTAI scores on the pretest and posttest. From this it may be concluded that participation in both the practicum and the seminar is necessary for maximum enhancement of MTAI scores. An idiographic analysis of score gains indicates that those who were most committed to the total program achieved the greatest MTAI gains.

4. Experienced teacher trainees demonstrated a statistically significant tendency to engage in increasingly more individualizing types of behavior each month. A follow-up rating of trainees who had been employed in naturalistic settings for four months indicated that the extent of individualizing behavior attained at the end of on-site training did not diminish significantly. From this it may be concluded that project experience was effective in helping teachers to individualize programs for children.

5. Knowledge test scores from trainees were generally significantly higher on posttest than on pretests. This was especially true for aides who attended the seminar and practicum for eighteen weeks. These aides demonstrated significantly greater gains than any other group. According to this criterion, it may be concluded that the project was most effective in training aides.

6. Eighty-seven percent of the teachers and/or aides who were trained during the first eighteen weeks of the project year were employed four months after completion of their training. Reasons most prominent for lack of employment in education for this and the previous year were (1) lack of positions available in the desired areas, or for aides (2) higher pay from other types of jobs, (3) need to spend time with children in families. From this information it may be concluded that to insure high rates of employment, commitments from trainees and their employers should be made before training begins.

On Institutional Change

The USU EPDA proposal, in the form in which it was first submitted, considered "institutional change" only in terms of the University and primarily in terms of the Department of Elementary Education. The objectives which were written were directed at the behavior of university students to be enrolled in elementary education courses beginning during

the 1971-72 year. In the negotiation process commitments were extended to make specific curriculum changes to better accommodate BEPD priorities. Progress toward these curriculum changes will be considered in this section, along with consideration of new endeavors which have been initiated to expand the scope of institutional change from the university to include consideration of public schools, community agencies, the State Department of Education, and holders of political offices.

The format for this section is less test score oriented. The perceptions listed are those of the project director and the project staff as they see the significances of the project evolve. Others who have been less directly connected with project are probably unaware of many of these events, or do not associate these events directly to the project. However, in all cases these changes have been promoted by the project in various ways. It is unlikely that more than a small minority of these changes would have occurred or be as far advanced in implementation without an EPDA project.

A. Changes in University Staff:

Listed below are some of the changes that the EPDA project has helped to bring about on the part of the Edith Bowen staff, and therefore to the Elementary Education Department of which they are members, and to the students, participants, and other departments that have worked with us.

There has been:

1. a more openness on the part of most members of the Elementary Education and Special Education Departments to the idea that non-professionals are an asset to the professional teacher and a willingness to include students in meaningful activities rather than allowing them only observation privileges, that students were required to participate in two years ago. This has required a re-evaluation of the traditional adult/pupil ratio. (There were many concerns over having five adults in a classroom of only thirty children when the project began in 1969.)

2. a change in teacher role, from the need to be the center of activity and the authoritarian, to a team leader with responsibility for planning the curriculum and arranging the environment so that both adults and children can learn from one another. A major role of the Edith Bowen teacher is the management of people and space.

3. an increased understanding of individualization and the accepting of the need to observe, keep records, and use appropriate resource personnel in the diagnosing and prescribing for the needs of individual children.

4. an increased awareness of materials that can be used to help individual children. (Joann Gillis from the State Department as well as the SEIMC in Special Education has been a vital part of this growth and very few of the students graduating in Elementary Education even know of this service.) EPDA funds have also made it possible to purchase materials to meet specific needs of the child with learning handicaps.

5. an increased understanding of the exceptional child developed by staff, participants and students involved. Edith Bowen teachers are becoming more skilled in identifying and differentiating between normal behavior, problem behavior, and emotionally disturbed behavior and they are sharing this knowledge and understanding with participants and students. Through working with team members from Special Education and workshops such as with Kris Juul, they are gaining new insight into diagnostic and remedial techniques and, equally important, more trust in their own judgement and knowledge.

6. a growing appreciation of the relationship between emotional disturbance and learning difficulties. This holds true when referring to children and/or adults and has become every evident as we have worked in teams.

7. a deepening appreciation for cultural differences. The EPDA project has provided an opportunity for our staff and students to work with adults from minority groups for a long enough period of time for an understanding and appreciation of differences as well as likenesses to develop. We have found that working with adults of a different culture can be much more difficult but can be equally as rewarding as working with minority children.

8. an expanding of knowledge about other disciplines. Through contact with other departments on campus the staff has gained additional vocabularies and knowledge in areas that were foreign to them two years ago. Special Education, Counseling, Psychology, and Communicative Disorders have each contributed their vocabularies and philosophies. Physical Education has helped us understand the interrelationship of body skill and academic achievement. The Social Sciences have all contributed to our understanding of our own as well as other cultures. Secondary Education has shared with us specific skills in interaction analysis and linguistics as well as interested students as big brothers and as workers in field experiences. The team meetings as well as consultants have provided a continuous inservice training program for the Edith Bowen staff and the integration of knowledge from other disciplines has added new depth to the teaching.

B. Changes for University Students:

Changes as listed above under "Changes in University Staff" have contributed to the following conditions for students.

1. The university student has earlier and more intimate contact with children. He becomes involved rather than sitting on the sidelines observing. (See Appendix T.)

2. The university students hear the child spoken of as an individual with specific needs rather than labeled, needs that can be met instead of labels which only harm the child and add little to the understanding to how to work with him.

3. The university students observe and work in an environment where differential staffing is a reality and where individuals are respected for their differences as well as for their abilities to meet the needs of the child.

4. The university student has the opportunity to work with or to observe an adult using a wide variety of materials in providing a more positive learning environment for children.

5. The university student learns that he can contribute vital information about a child through his direct contact with the child while participating in the Big Brother - Big Sister Program or through the various field experiences. The student is given the opportunity to become a contributing member of a team as they seek ways of meeting a child's needs. He finds that he is valued not only for his work with the child but also for his skills in observing and recording objective information.

6. The university student profits by the material that has been purchased from funds of EPDA for meeting individual needs of children of variant learning abilities.

7. The university student is welcomed into an elementary school and classroom where he is <u>needed</u> and where all the adults are well aware of the fact that they do have <u>the</u> answers and that they can and do learn from one another and from children.

8. The university student profits from having both the Edith Bowen teacher and the district teachers cooperate with the university professor as a team in the teaching of university classes. (Example: Dr. Allred, Mrs. Hernandez, and Mrs. Glenn - Spring Quarter - Elementary Education Social Studies.)

9. The university graduate student in Special Education with an emphasis in emotional disturbance will be involved in a five-week internship to learn from the Edith Bowen staff how to work with children of variant learning abilities.

C. Increased Community Involvement:

The involvement of Edith Bowen personnel in the community has been facilitated by the EPDA project.

1. The Edith Bowen staff under Dr. Jackson's direction have conducted workshops in Moab, Utah and Cokeville, Wyoming on ways of providing for the child with learning problems. During the Moab workshop a telelecture was used very effectively, thanks to the help of Phyllis Publicover from the Department of Special Education.

2. Plans have been made for Edith Bowen teachers to act as resource people on telelectures sponsored by Kathy Wallentine of the State Board of Education. These lectures will be geared to rural districts needing help with problems in the areas of Early Childhood Education and children with learning problems.

3. Contact has been made with all extension agents to explain the need for non-professional personnel to be involved in public school programs and members of the EPDA staff have been listed as resource people in the training of aides.

4. Participation by EPDA staff in a T.V. program, on the use of aides in the public schools, sponsored by Utah State Extension Service.

5. Involvement with migrant council in arranging adult education programs with excellent cooperation with College of Family Life, the Departments of English, Foreign Language, and Physical Education. (See Appendix S)

6. Plans are being made to provide meetings during the coming school year with children of those Mexican-Americans that are leaving the migrant stream this fall. This will provide our university students an opportunity to work with children of another socio-economic and cultural background.

7. The consultants that have been paid from EPDA funds have been made available to other departments on campus (Special Education and Physical Education), and audio tapes have been sent to other districts.

8. The Edith Bowen School hosted Milt Akers, executive secretary of the NAEYC, and Governor Calvin Rampton at a Spring Conference of the UAEYC. (The Edith Bowen Early Childhood Education Unit has been recognized by the state department as one of their demonstration centers.)

9. Plans have been formulated with Extension, Psychology, and the EPDA project to cooperate on the purchasing of ten hours of video tapes that will be made to our specification by Dr. Kris Juul. The topic will be "The Early Diagnosis of Learning Disabilities and Methods of Remediation."

10. Representative of the Counseling Department and the Edith Bowen PTA attended a workshop in Portland on the use of Adlerian Psychology in parent groups. A very intensive parent program is planned for next year. This will be under the direction of Reed Morrill and Carolyn Barcus. A parent group is being conducted this summer.

11. Workshops and telelectures are being planned to involve our cooperating districts in planning for next year's program both on campus and in the individual districts.

12. Two districts, Logan City and Cache County, requested to become part of the project for the 1971-72 school year. Both districts declined the invitation to become involved during the first year of the project.

D. Changes in University Curriculum Offerings:

University students are now involved or will be involved in new classes that have been the direct result of the project:

1. The combining of Elementary Education 150 and 100 has resulted in the new 101 class, which requires observation of children as part of the study of foundations in education.

2. As one of the basic requirements for certification in secondary education enrollment in either special education 301 (the education of exceptional children) or special education 302 (diagnosis and treatment of learning difficulties) has been recommended.

3. A seminar is to be offered in the Department of Special Education in the area of early childhood education.

4. A class for the training of aides has been accepted by the curriculum committee. It is hoped that this is a class that can be offered to districts as an inservice training program for both non-university personnel and high school students who are contributing their time as volunteers.

5. A second unit for hard of hearing children will be housed at the Edith Bowen School. (Communicative Disorders staff have been and will continue to be vitally involved in the EPDA project.) This second unit will provide more first-hand experiences for university students. Since many of the hard of hearing children spend part of the day in the regular class our elementary students have the opportunity to work with them.

6. A renewed emphasis has been placed on the area of early childhood education which was part of the 1970-71 project. In spite of the cut in state funds and the elimination of this area from the project, the spark had been lit and the Edith Bowen program in early childhood became a state exemplary center. Mrs. Joan Bowden and Mrs. Alice Chase provide a student teaching program that is outstanding. Their open classroom is unique in the environment for learning that is provided for both children and adults. This has also provided the first opportunity for student teachers to register for a block of credits, requirements for which are being met in a naturalistic context at the Edith Bowen Laboratory School.

E. Conclusions on Institutional Change

The argument that the project is solely responsible for any or all of the changes that have occurred in institutions associated with the project is not tenable from the perceptions and data presented. However, evidence indicates that changes which have occurred are concurrent with the efforts which have been exerted through project activities. Some of the most significant areas in which the changes have occurred are:

1. changes in university staff in the direction of being better prepared to work with divergent types of children and adults.

2. improved learning environments for college students through direct and intimate contact with children, better teachers as models, improved learning opportunities, and increased access to materials for teaching.

3. increased community involvement with migrants, parents, school districts, consultants, and the State Board of Education.

4. university curriculum changes to provide greater exposure of students to desirable attitudes and techniques for dealing with variant types of learners.

APPENDIX B

Kindergarden Perceptual-Motor Activities

By Mrs. Joan C. Bowden
Edith Bowen Laboratory School

Major Goals:

1. To increase intellectual skills through a program of perceptual-motor activities.
2. The program is designed to increase the child's self-concept through psycho-motor activities.

Background Information:

Evidence (Piaget 1966) is accumulating that indicates sensorimotor experiences are basic to later intellectual operations of children. As motor activity is an important factor in perceptual development, that no child should be deprived of this experience. It is particularly important for the child with learning disabilities to have many experiences in motor activities and perceptual development.

In drawing from the various theories of Marianne Frostig, Carl Delacato, Newell C. Kephart, and Don J. Applegate, we have an eclectic approach to motor activity and perceptual development in the kindergarten program.

Program Description:

The Perceptual Motor Program is planned to increase the self-concept of kindergarten children by offering an integrated curriculum of psychological and physical development. In planning the program consideration has been given to the following areas:

1. Psychological
   To increase ability:
   a. to learn skills
   b. to identify and cope with problems
   c. to follow instructions
   d. to increase sensory awareness
   e. to accept reality in relationship to self
   f. to communicate

2. Physical
   To develop a sense of well being and promote good health through:
   a. body awareness
   b. coordination
   c. rhythm
   d. balance (static, dynamic, object)
   e. agility
   f. speed
   g. flexibility
   h. endurance
   i. creative movement
   j. strength

3. Emotional
   To cope with:
   a. success and failure
   b. frustration and anger both in self and others
   c. jealousy and envy
   d. fear

4. Social
   To increase children's ability:
   a. to share and take turns
   b. to interact positively with others
   c. to share experiences
   d. to be aware of social distance
   e. to give recognition and reinforcement to peers
   f. to promote self-control

Objectives:

Major Objective of the Edith Bowen Teacher:

Help teachers and aides become aware of and develop skill in handling situations that arise as problems in psychological, emotional and social areas while concentrating on physical skills (i.e., observe for evidence of frustration and provide for individual needs).

Program Objectives:

1. Kindergarten children will develop and improve skills in balance, coordination, speed, flexibility, endurance, rhythm, strength, agility.
2. Kindergarten children will develop and improve their skills in body awareness in relation to their world through: isometrics, relaxation, tactile and kinesthetic stimulation, finding and manipulation of body parts, right and left discrimination.
3. Kindergarten children will develop and improve skills in creative movement through use of space and in mimetic play.

Daily and weekly objectives are determined by observation and through planning to meet individual needs of children.

Evaluation:

1. The Perceptual Motor Performance Test developed by Don Applegate was administered in September, with follow-up tests administered in February and May 1971.
2. Increase of self-concept can be observed and evaluated by a child's use of his body, his knowledge and acceptance of his strengths and weaknesses, his ability to cope with success and failure, his recognition of individual differences and his relationship with adults and children.
3. Observation and anecdotal records of activities will indicate transference of achievement to the classroom situation.
4. Intellectual skills will be observed and evaluated on student's progress.

APPENDIX C

A Study in Self-Concept and Human Relationships with Six- Seven- and Eight-Year Olds

By Mrs. Alice Chase*
Edith Bowen Laboratory School

In September, 1970, a child who had been labeled emotionally and intellectually handicapped entered our classroom. We soon became aware that he was unable to relate to the group in a way that brought him any happiness or satisfaction. He appeared to be an isolate, both from his own choice and that of the group.

We made a study of the social structure of our classroom by using sociometric techniques and found that there were two additional boys who were rejected by the group. Therefore, we decided to structure a classroom experience in self-perception and human relationships. The study was under the direction of a University staff member who had special competencies in this area of Special Education. She worked closely with us throughout the study, joining us in our team meetings and observing our classroom almost daily. She also brought in additional personnel from Counseling Psychology and Special Education who were receiving field experience in their respective areas of study.

We began the study by listening to the record and singing "Everyone is Beautiful in His Own Way."

"Everything is beautiful
In its own way -
Like a starry summer night
Or a snow-covered winter's day.

Everybody's beautiful
In his own way,
Under God's heaven
The world's going to find a way . . .
. . .
Every hour that passes by we know
The world gets a little bit older.
It's time to realize
That beauty lies
In the eyes of the beholder . . .
. . .
We shouldn't care about the
Length of one's hair
Nor the color of his skin.
Don't worry about
What shows from without,
But the love that lives within."

*The author gratefully acknowledges the contributions of Ronald John and Joan Thorkildsen respectively for the initial idea and implementation of this study.

We also read and studied the poem, "Special," some children committing it to memory:

Nobody's eyes are quite the same as your eyes.
Some eyes are brown and some are big and blue.
But your eyes are special just because they're your eyes,
And you are special just because you're you.

Nobody's voice sounds quite the same as your voice;
Singing or laughing or calling out my name.
Your voice is special just because it's your voice.
No other voice sounds quite the same.

You're somebody special, there's nobody like you.
You won't find another if you travel far and wide.
You've your own special feelings, your own special secrets,
Your own special happiness deep inside.

And nobody's smile shines quite the same as your smile.
Nobody can smile just the way you do.
Your smile is special just because it's your smile.
And you are special just because you're you.

You're the <u>one</u> and the <u>only</u>, <u>extraordinary</u>, <u>very special</u> <u>YOU</u>.

We put up a full length mirror in the room and posted daily captions above it such as:

Make someone happy today.
I like everybody.
Speak happily - It will show.
Soft voices are beautiful.
Magic words: please and thank you.

Each day we spent approximately thirty minutes talking about our findings as we looked at our own individual and group behavior. Following are some of our activities:

1. Daily group experience charts in which different children expressed the reasons they felt as they did that day, such as:

Tommy said, "I'm glad I'm me because I have a friend named Paul."
Lisa said, "I'm glad I'm me because I'm well."
Shawn said, "I have lots of friends. I'm glad."
Ronnie said, "I'm glad we had a baby lamb."

2. We wrote daily individual diaries which often expressed a growing awareness of feelings toward self and others. Examples:

"I'm glad I have my family."
"Everybody is my friend."
"It was nice of the team to let Tim keep score."
"We made a 'Good Manners Tree.'"

3. We took special note of our behavior in the lunch room. We made some group rules about how we ask for more food or how to say, "No, thank you."

4. We did many mini puppet shows in which we expressed feelings under various circumstances such as:

a. How I feel when someone calls me a name.
b. My feelings when I can't do my math or read my book.
c. How I feel when someone laughs at my mistake.
d. How I feel when I'm disappointed.
e. How I look and act when I succeed.

5. We role-played emotional situations such as the ones in No. 4.

6. We listened to many records such as Peter and the Wolf and tried to determine feelings from the tones of the voices we heard.

7. We listened to music and painted pictures which showed how the music made us feel.

8. From magazines we cut faces showing different expressions and made personal scrap books and large class charts showing how people indicate their feelings by their facial expressions.

9. We developed the habit of looking often into the mirror to see whether or not our appearance was pleasant.

10. We learned a vocabulary which helped us to express feelings: calm, excited, frustrated, delighted, etc.

11. We noted how body gestures as well as facial ones show a person's attitude about life. For example, we decided that shrugging the shoulders seemed to say, "I don't care" and we determined to eliminate this habit.

12. We purchased a "punching rabbit" which we punched when we felt as though we had to hit someone.

13. We made work and phrase cards which we read in as many ways as possible to show emotion:

"O.K."
"I'm all right."
"Come here."

14. We evaluated many pictures: "How do you think this boy feels?" "What might have happened to make him look as he does?"

15. We wrote endings to stories:

"Tom felt puzzled when . . . . ."
"Bill laughed when . . . . ."
"She was excited because . . . . ."

16. We had modified therapy sessions in which we were given help by

university personnel.

17. We enlisted the help of everyone in the classroom to see that everybody else was happy.

18. We had a daily "Chore Chart" on which the assignments brought together children of variant learning and behavior abilities. For example, a socially adept child and one who was not thus gifted were asked to make a flannel board play. An academically able child and one not so endowed were asked to read a story to each other. A child who had motor problems and one who did not were asked to go out on the playground for 15 minutes and toss a ball to each other or do some other appropriate activity.

19. We made a number of self-books. One example of this was with a child who appeared to be developing the habit of day-dreaming -- of withdrawing from the activities at hand. One of the university professors from Special Education who was working with us suggested that this child appeared to be unaware of his own membership in the group. Therefore, she asked that we take pictures of him in various situations and then ask him to describe the pictures to us. We did this, and had some interesting responses from him:

> "We are making butter. I am being bored because I can't shake it all the time. I'm not interested in watching it turn to butter because other kids are shaking it."
>
> "I'm doing my diary. I'm not bored because I like to write."
>
> "We're making ice cream. I am watching how we make it. I am not bored. I'm watching."
>
> "I'm eating ice cream. We just made it. I have a cone. Everybody but K. likes it."
>
> (Much later)
>
> "I'm reading a funny story. I like it. It's dumb to get bored."

20. A person from Counseling Psychology held a weekly conference with the parents of the first boy mentioned. A plan of action was set up for the home as well as for the school with the hopes that the boy would gain a sense of stability and adequacy as he related to his class group and his family.

The foregoing activities were developed and used extensively to enhance each child's self-concept and to help him relate more successfully to the group.

Results:

There appeared to be some very positive results in classroom behavior, in personal relationships and in group interaction. The cooks reported that there was marked improvement, for example, in courtesy as the children took their luncheon trays. Most of us learned to make such statements and requests as:

"May I have just a little of that, please?"
"I don't care for any apple sauce, thank you."
"May I please have juice instead of milk?"

The boy with and for whom the processes were initiated now plays with and reacts to the group and to individuals in a much more desirable and positive manner. There are evidences which indicate that children are attempting to treat each other more kindly, such as the following recorded statements:

"I'm sorry, George. This is your chair."
"Tom is really a good kid. He let me have the ball first."
"Mary, what a pretty dress you're wearing."
"Ronnie, it was nice of you to share your lamb."
"Your sharing is pretty."

Other events indicate that children see themselves as important group members - - - individuals who can and do achieve, and individuals without whom the group cannot succeed. We have seen this particularly in preparing and giving individual reports. This is an almost daily and important part of our classroom activities. As we work in a certain area of study, each child chooses the part of that experience which is his alone. It is well understood by all of us that as each person gives his report, he becomes the teacher. No one else will treat his topic. Therefore, it becomes important to each of us that we do our best with presentation, and that we are good listeners when someone else is reporting. The words "personal responsbilitiy" often became a part of evaluating times.

We think that this is a study with which we might begin each school year. It could be initiated in various ways in any classroom. The process is important because it enhances a child's ability to describe his own feelings and to become aware that his feelings and those of his classmates are essential components of emotional well-being.

"Feelings can give us knowledge
They can give us knowledge of other's feelings
And only feelings can do so."
H. F. Burr "The Neural Basis of Human Behavior."

APPENDIX D

In Mathematics

by Mrs. Amelia Hernandez
Edith Bowen Laboratory School

Different children react to different situations. Some children desire to work independently; others work best when they are in a one-to-one relationship, others enjoy working with their peer groups while others would respond much better where there is competition. At the ages of nine and ten children are always after rewards, be it a material reward or inner satisfaction. I have found that the more challenges and competition you present these children, the more rewarding it is for them, especially if they succeed. Success can be seen in their faces as bright eyes, wide smiles, and buoyancy in spirit. Sportsmanship is developed too. Life does not always show its bright side. One has to take its dark side also. These children learn to take it and they too know that after the defeat there is still opportunity for winning and that the harder a battle is won the sweeter is the victory.

Caution has to be taken into consideration by trying to match as much as possible children of equal standing in the class. Free choice can often be used. Children who are in the slow group are frequently given the chance to make their pick. If they are assured of themselves, they would dare challenge someone above their level, and if they win over that person, great satisfaction and accomplishment is in store for them. For the defeated, the class knows whether he is doing it to give success to his opponent. Otherwise he would say he needs to exert more effort than he is putting in at the moment.

Of course there are some shy ones. The teacher should be aware of this and not call on these children unless they volunteer. The shy group can be handled in another way; that is, by pulling them out and the aide or aides working with them. When they are ready, they volunteer to go back to the group and pick their choice in the competition. This activity is mostly accomplished in math during the drill and review phases of the lesson.

I feel that children perfer to be taken as a group when a new lesson is to be presented. They do not want to be left out. When a lesson is fully absorbed by the fast-moving group, they are allowed to work by themselves under the direction of the student teacher or trained teacher. Those who lag behind voluntarily raise their hands and request that they be pulled out. Then the teacher works with them until they are ready to join the bigger group. Then we have the "in betweens," those who are in the fast group but cannot work as fast as the others and those who had decided they were through with the tutoring system. This transition group is given the same kind of work as the fast group but lesser in difficulty and number. Children do not notice the differences unless they observe papers being handed to them with different operations or bigger numbers. If the best group has 985×6, this group may be given 984×2 and not feel inadequate.

Our team discovered it easier for us and the children as well when we had the same subject at the same time, broken up to small groups. Children

are asked what subjects they would prefer first, with the understanding that there are some subjects which ought to be taken at a definite time. Planning is done during the first hour in the morning by the adults in the classroom and the young learners.

There is student individualization, group, and mass instruction. There is also free choice for students to move from one group to the other. Children like having several teachers so that if one teacher is busy they can go to the others for help. This is possible where aides and parents are used to assist in the classroom. With freedom, children enjoy the grouping, shifting and mobility without fear that they will be embarassed or degraded. It allows for each child to develop his own pace.

This method is often more fruitful than just plain individualization. Guidance is always necessary for at least the first months of the school year. When children work in their math books individually, learning does not seem to be lasting. Exercises in the work book are stereotyped things to them. Some exercises in some areas are too limited. Some children need more practice than others on a given operation. Teachers may prepare work sheets using classroom and home situations to lend realism.

I would not say this method is good for any group of children. Its desirability depends on types of children. The teacher must find where her class will respond best.

APPENDIX E

Creative Expression

by Mrs. Barbara Ann Howell
Edith Bowen Laboratory School

Meeting the needs of children with variant learning abilities in a regular classroom situation intimates to many teachers a need for a single academic program which is totally different from the regular group activities. This is far from the truth as one of the basic needs of these children is to become an academically accepted part of the whole group. Creative art is an area in which the original expression of each child's effort is a treasure. The child with learning difficulties can often excell in art if he can be convinced that his work will be acceptable.

The philosophy that the only right way is the child's way and that an original creation is always a personal and prized possession and great accomplishment, is often the determining factor in the ability of some children to risk committing themselves among their peers.

An art project in which color is based as an expression of feelings is an interesting basis for discussion with students and also a point of common interest. Color has great appeal for everyone. We live in a world of color and this color affects us emotionally. Questions that stimulate children's thoughts about color might follow these ideas:

1. What is color?
2. What does it do?
3. How does it make us feel?
4. What can we do with color?
5. What colors express these feelings?
   (quietness, anger, excitement, cold, fright, happiness, sadness, hate, etc.)
6. What is the odor of color?
7. How does (grey, red, green, etc.) smell?
8. What is the color of (perfume, a rose, a cloud, lilac; What color is a siren, wind, thunder)?

After discussing the feelings of color, each child may draw an angry or happy picture without objects, color being used to express all emotions. Children can then share their creations and why they were developed in a particular way.

There are endless other ways of helping all children to express themselves and to help them realize that all people have emotions, both negative and positive, and that these emotions can all be expressed in an acceptable manner.

Lines, texture, shape and size can also be used as media of expression. Each concept can be taught separately and/or with another concept. The order of presentation is unimportant. The real emphasis must be placed on the value of the child's creation. What he likes and decides to create is its own criterion for what is important and successful.

Some examples of poetry written about color by fourth graders are reproduced here.

Color

Black is the color of sadness and war
and the death of a dog. --Bill Barnes.
Silver reminds me of a shining white bird
flying through the clear blue sky.
--Ann Boyce.
Black is waking up at 6:00 o'clock. White
is the wisest color of them all.
--Bruce Arneklev.
Brown is cookies, green is a friend, yellow is
a clock ticking, and white is a dream.
--Steven Nelson.
Brown is dirt and shores and even a ring.
Yellow is people walking down the street.
--Joan Haralsen.
And sometimes yellow can be springy like a little
puppy dog. --Jennifer Sorensen.

Purple
by Cheri Ramsey

Purple is a soft pillow
Purple is a sunny day in March.
Purple is the sunset at night.
Purple is a flower with a yellow middle.
Purple is what color your eye gets when
somebody socks you.
Sometimes purple is the breeze blowing.
Sometimes purple is your teacher yelling
at you.
Sometimes purple is waking up on a gloomy day.
Sometimes purple is a very exciting thing.
Sometimes purple is a happy feeling.
Purple can be almost anything.

Gray
by Lawrence Davis

This morning I woke up and walked right into
gray. Everything was gray.
The sink was gray, my sisters were gray, the
sunshine was gray, my bed was gray.

Well, I'm going to live in gray.
Well, I'm glad school isn't gray.

APPENDIX F

Evaluation of an Audio Tutorial Procedure with Math Deficient Fifth-Graders

by Mr. Tom White and Mr. Joseph Stowitzchek
USU Department of Special Education

The use of cassette tape recorded (CTR) material with printed work sheets has been demonstrated as being effective in the remediation of spelling deficiencies and it has been suggested that similar procedures may be effective in the remediation of deficiencies in mathematics.

The purpose of the present project was threefold:

1. to develop an individualized program in basic addition, subtraction, multiplication, and division using cassette tape recorders as the medium of delivery.
2. to determine whether CTR procedures are effective in remediating basic mathematics deficiencies (addition, subtraction, multiplication, division) with fifth-grade children.
3. to develop procedures for managing a CTR program in a regular class situation.

Method

Subjects

Five fifth-graders-- failing in arithmetic as determined by their teacher and according to results of the Metropolitan Achievement Test.

Apparatus

The equipment used in the project included five Crown Royal, Solid State Model CTR8750 Cassette Tape Recorders, five sets of earphones, C-30 (15 min. x 2) cassette tapes, and dittoed response and answer sheets.

The experiment was conducted in the regular classroom.

Basic Mathematics Program

A program in basic mathematics was presented on cassette tapes. Each section included approximately 100 problems and was divided into four lessons of 25 problems each. The total series for each section included 12 parts for completion (four lessons of 25 problems each at 5; 3; and 2-second answer intervals). The first part of a lesson was presented using a 5-second interval to answer a problem. Problem order was then changed and the second part was presented at 3-second answer intervals. The average length of a lesson was about 3 1/3 minutes. The problems were presented orally on the tape.

Procedure

Sessions were conducted each weekday morning during the regular math period from 9:15 until 10:00. The subjects were furnished with a response sheet and the correct lesson on the cassette. The subjects received one point when they were seated at the cassette and wearing earphones. The cassettes were turned on and the subjects proceded with their lessons. When the last problem was finished the tape instructed the subjects to take the completed answer sheet to the teacher's desk for correction. The subjects received two points for reaching criterion of 95% correct per lesson. The teacher recorded subject's points and assigned a new lesson. If subjects did not reach criterion upon the second attempt or if six or more problems were missed the first time through, subjects then had the options of studying the written problems and answers by themselves or listening to the lesson on the cassette tape while following an answer sheet containing the problems and answers. The subjects would then re-do the lesson. If criterion still was not met, the lesson was divided into halves and criterion of 100% was required for each part. Subjects then received one point for criterion on each half.

The pupils were awarded points by the teacher in the form of stars which were immediately pasted on a thermometer graph. The teacher recorded all trials for each session on a graph.

Reinforcement Procedures

The subjects received social reinforcement in the form of praise paired with points for each lesson that reached criterion as well as points for setting up and taking the equipment down. With the points earned, subjects purchased fishing tackle (bobber, lures, hooks, etc.) which was displayed on a reinforcement menu. The same points used to purchase fishing tackle had a cumulative value toward earning a fishing trip at the end of the program.

Evaluation

Form A and Form B of the Metropolitan Achievement Test were administered to the subjects respectively before and after participation in the CTR project. Pre- and post-administration of the Hofmeister diagnostic subtraction, multiplication, and division tests were performed with subjects as appropriate. Subject's progress through the cassette lessons was monitored to determine the point at which criterion was <u>not</u> met. (This point was considered entry level.)

Results

All subjects started at lesson one of the program. Subjects progressed through the material at different rates as a function of their abilities. In total, 22 sessions of 30 minutes each were conducted over a period of one and one-half months.

Comparisons of pre-and post-results between subjects on the Metropolitan Achievement Test generally showed slight gains in computation, problem solving and the average of the two (TABLE I).

TABLE I

Metropolitan Achievement Test: Mathematics Section

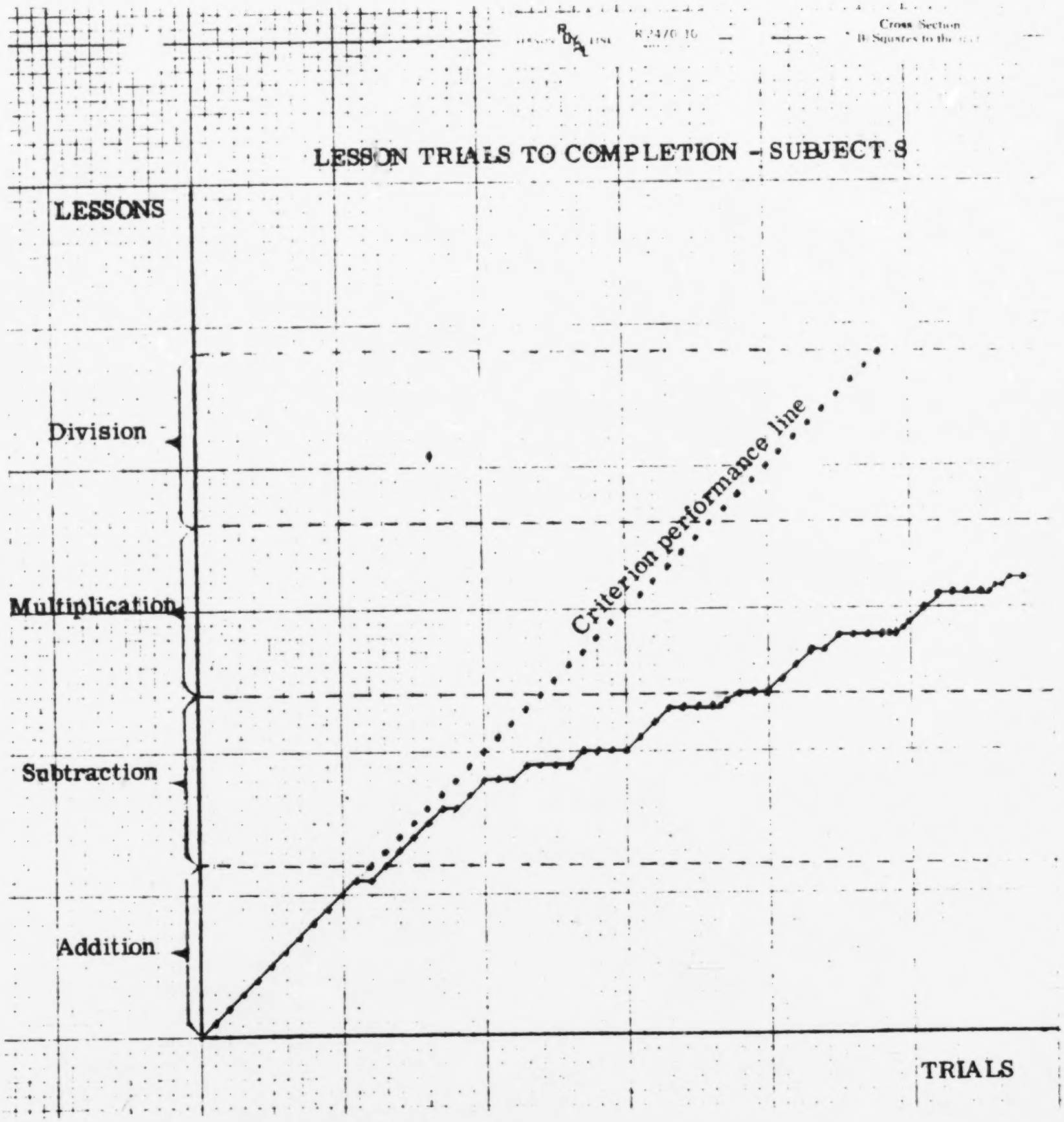
	Computation			Problem Solving		
	Pre	Post	Gain	Pre	Post	Gain
Subject S	-3.0	4.0	1.0+	3.0	4.3	1.3
Subject D	4.7	4.4	-.3	4.2	4.0	-.2
Subject E	3.6	4.9	1.3	4.6	5.4	.8
Subject L	3.6	3.3	-.3	3.8	4.0	.2
Subject J	3.6	4.0	.4	3.3	3.8	.5
X	3.7	4.1	.4	3.8	4.3	.5

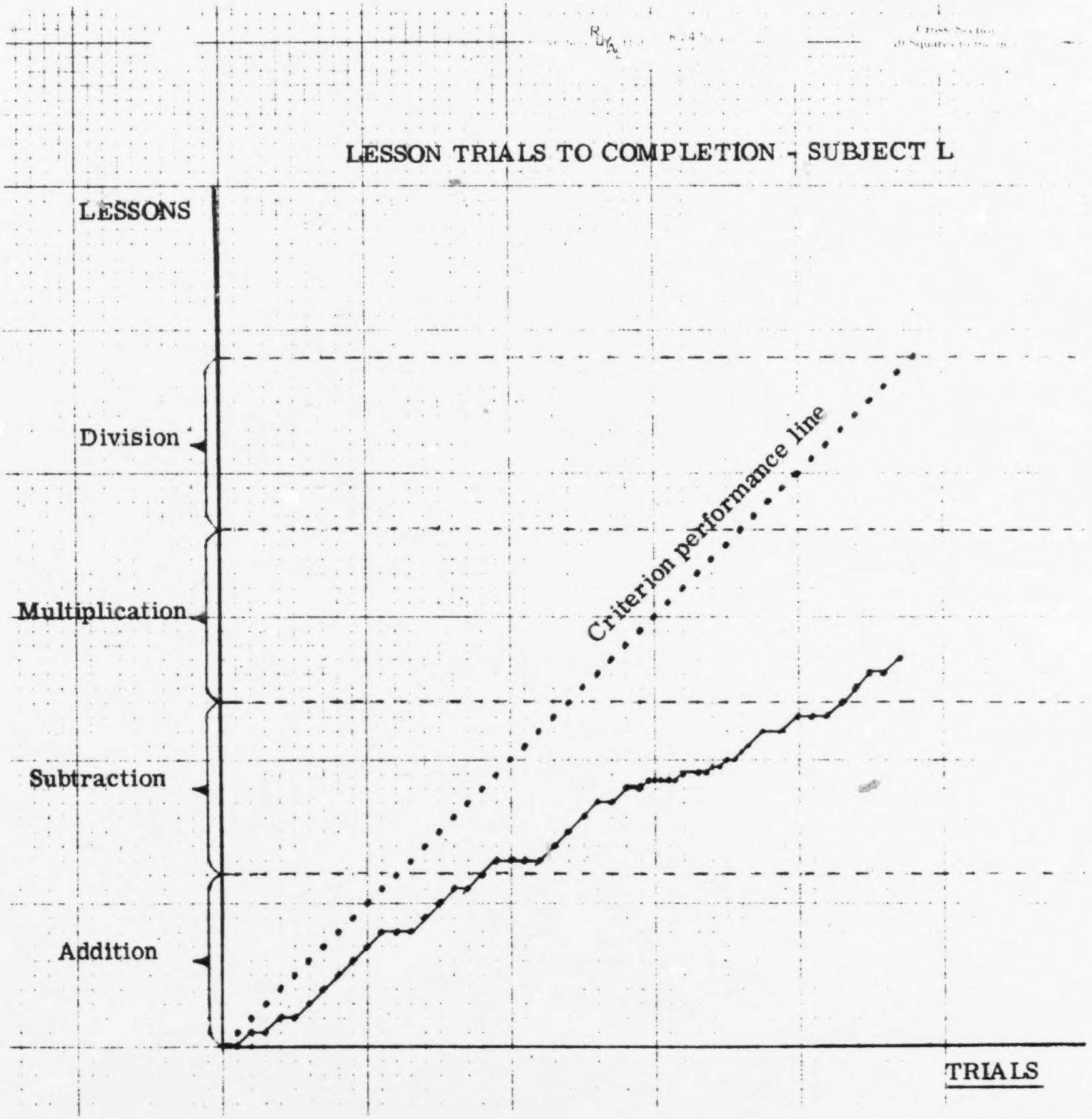
Two types of data were collected from the Hofmeister diagnostic tests; accuracy of computation and rate of computation. Rate of computation was considered to be the most pertinent data to the objectives of CTR lessons since rate of correct answer responses was computed. The following table presents the pre-and post-test performances of each subject according to the particular test administered.

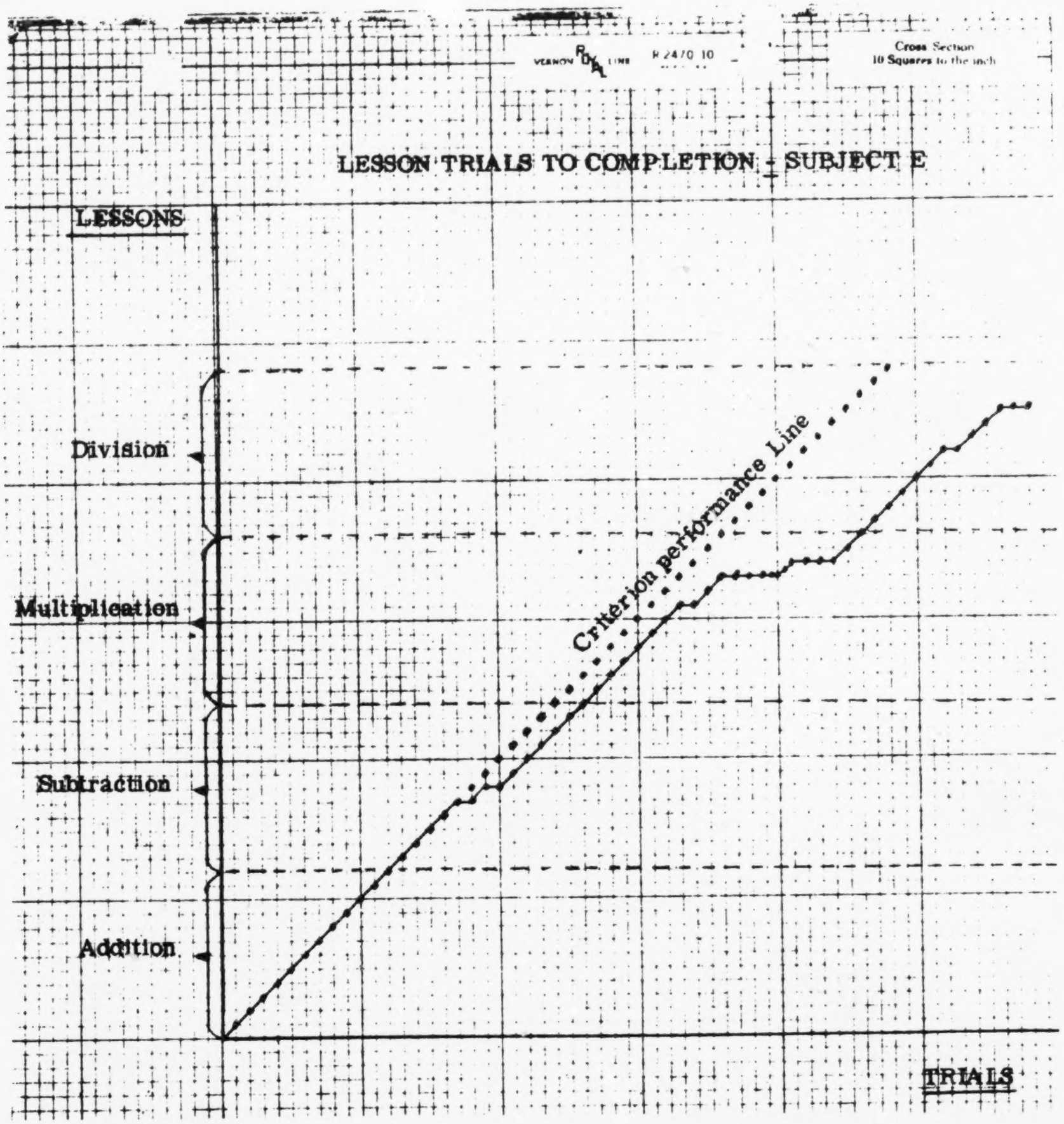
TABLE II

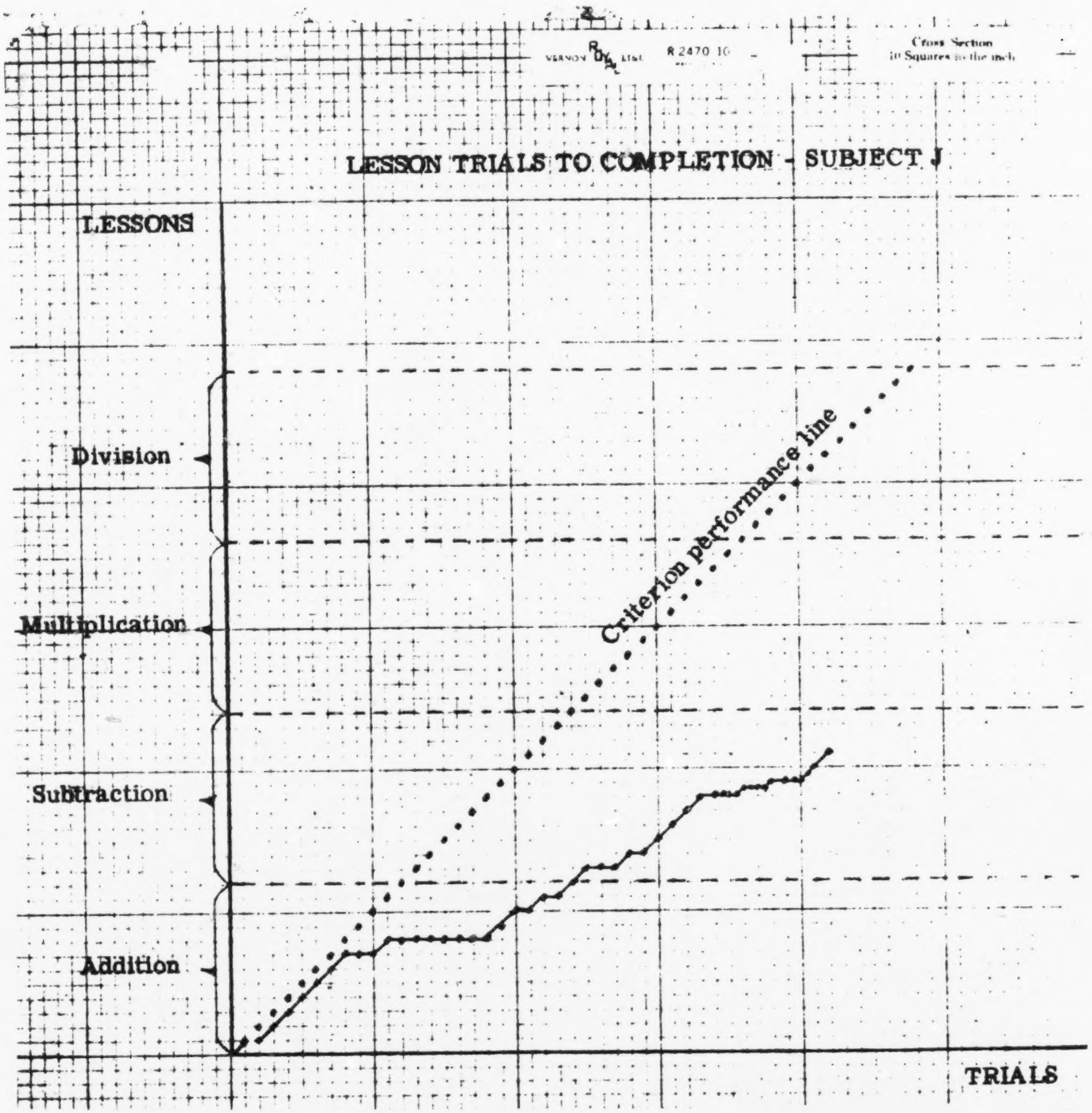
Subject	Test	No. correct		% increase in accuracy	No. of sec. per correct problem		% increase in rate
	Hofmeister diagnostic	Pre	Post	%	Pre	Post	%
L	Subtraction	98	91	-10.7	15.4	6.3	244
E	Multiplication	101	101	0	5.8	3.5	165
	Division	77	104	26	23.3	8.3	280
S	Multiplication	67	75	11.2	8.9	4.6	193
J	Subtraction	96	95	-1.0	11.8	9.2	13
D	Mutiplication	151	146	-10.4	9.5	3.5	270
	X	98.3	101.8	5.9	12.4	5.9	193

Throughout the project, a cumulative trials to criterion record was kept for each subject. The following figures represent the results of student's trials to criterion performance according to whole lessons and remedial lesson parts;


LESSON TRIALS TO COMPLETION - SUBJECT S
LESSONS
Division
Multiplication
Subtraction
Addition
Criterion performance line
TRIALS


LESSON TRIALS TO COMPLETION - SUBJECT L
LESSONS
Division
Multiplication
Subtraction
Addition
Criterion performance line
TRIALS


VERNON ROYAL LINE R 2470 10
Cross Section
10 Squares to the inch
LESSON TRIALS TO COMPLETION - SUBJECT E
LESSONS
Division
Multiplication
Subtraction
Addition
Criterion performance Line
TRIALS


LESSON TRIALS TO COMPLETION - SUBJECT J
LESSONS
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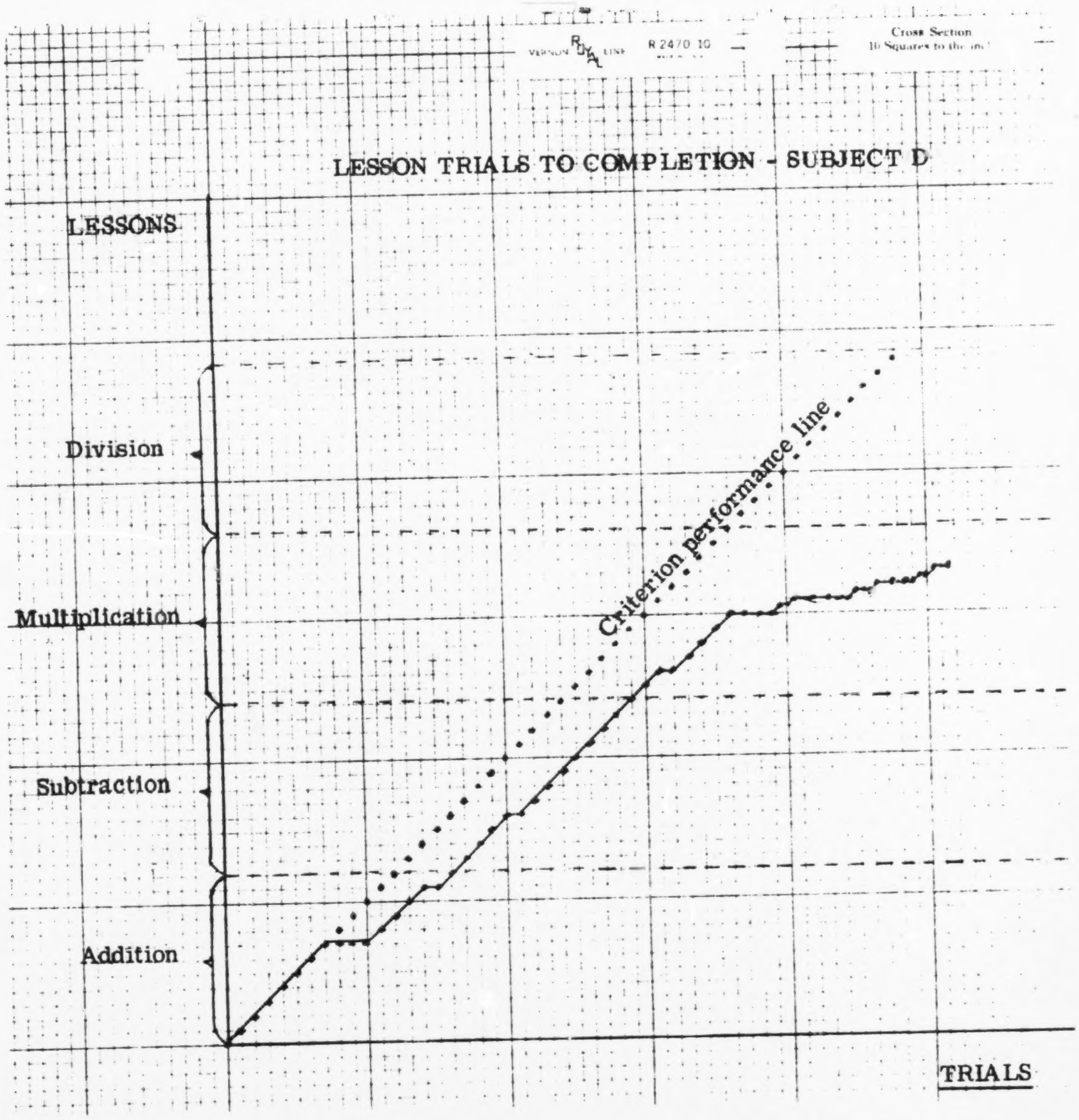
Multiplication
Subtraction
Addition
Criterion performance line
TRIALS


LESSON TRIALS TO COMPLETION - SUBJECT D
LESSONS
Division
Multiplication
Subtraction
Addition
Criterion performance line
TRIALS

Discussion

Although the project was conducted for a relatively short period of time (6 weeks), some improvement in overall mathematics performance of the subjects has been realized. Definite improvement can be seen with respect to computational rate. The inclusion in the cassette format, of a response time contingency can be considered effective in improving rate. Computational accuracy did not improve significantly as a function of the CTR system. However, it is expected that accuracy would improve over a longer period of time.

Several difficulties were encountered in the management of the project:

1. Five subjects receiving cassette instruction at the same time often produced "traffic jam" situations in keeping up with scoring, recording and setting up equipment.
2. The response sheet scoring and recording procedures were hampered by an excess amount of paper work.
3. The remedial cycle has not been adequately in order to insure a steady rate of progression through the program.

Recommendations for extended use of the CTR mathematics program include the following:

1. schedule no more than two subjects on the cassettes at a time
2. compile the paper work in a file kit to reduce the complexities of management.
3. examine the management of this program by a teacher, teacher aide, or student peer.
4. supplement the upper-division of each section with back-up remedial tapes.

In summary, significant portions of the stated objectives were met. A cassette program of eight tapes in basic addition, subtraction, multiplication, and division were developed; student performance data were collected which contribute toward validation of the program; and management procedures using a token economy were applied.

APPENDIX G

1970-71 ESEA Title I Evaluation

by Mrs. Prudence Scott and Mrs. Doris Wilson
Grand County School District
Moab, Utah

PHILOSOPHY

Success of the Title I Program for the educationally deficient child is dependent upon the understanding and acceptance of its basic philosophy by all personnel. This philosophy acknowledges that a positive attitude must be present before effective learning can take place and that a child who is not functioning in the regular classroom will respond to an individualized program based on his specific needs provided that a series of success experiences occur accompanied by positive encouragement and reward.

OBJECTIVES FOR THE 1970-71 Title I PROGRAM

I. Sixty percent of the Title I student participants whose pre-test standardized achievement scores are below the 20th percentile in reading and language will be achieving at or above the 24th percentile on post standardized tests at the end of the 1970-71 school year.

II. By the end of the 1970-71 school year there will be a measurable behavioral change in sixty percent of the Title I students. The change will be moving toward positive attitudes toward themselves as individuals. Evidence of the change will be measured by pre and post testing using SIS scales which have been developed for this trait.

PROCEDURES EMPLOYED TOWARD ATTAINING THE STATE OBJECTIVES

Facilities: The Title I reading program was incorporated in the regular school day utilizing a separate classroom with pleasant, relaxed surroundings which include various individual interest and learning centers and space for group activities. Such a facility became available at the two elementary schools.

Personnel: Personnel involved in the program were eight aides whose preparation consisted of one semester of special training with handicapped children in the E.P.D.A. project TEACH at the Edith Bowen Laboratory School, Utah State University and one full time supervising teacher who had also been trained in the above project. Consultant and resource personnel included members of the Edith Bowen staff, the regional special education specialist, the regional school psychologist, elementary school counselor, remedial reading teachers, and speech therapist.

In Service Training: A pre school one week workshop was conducted by personnel from the Edith Bowen School and the State Title I director for orientation of the local Title I personnel. As a culminating activity a two day workshop was held in May involving the Title I personnel, classroom teachers of the target group, and members of the Edith Bowen School staff.

Evaluation-Planning-Instructional Media: Scheduled periodic evaluations of each students progress were conducted throughout the program. Continuing anecdotal records were written and reviewed on individual student behavior. Staffing sessions were conducted for children with special problems involving the aides, teachers, and specialists. Prescriptive planning sessions were held frequently in order to meet the individual needs of the children or the group, and for formulating long and short term goals. Instructional materials and media were varied and innovative to promote the attainment of the stated goals. Parent conferences with the Title I personnel were coordinated with the scheduled school parent-teacher conferences in November and April.

CHARACTERISTICS

All the students in the target group were in some manner educationally handicapped and manifesting symptoms ranging from mild to moderate in their regular classrooms. The symptoms or characteristics included varying degrees of visual, auditory, speech, perceptual, motor, mild retardation, and symptoms related to cultural deprivation, withdrawals, negativism, failure concept, emotional problems, and general feelings of self-worthlessness.

INSTRUMENTATION

The program was designed to include 80 children from the second, third and fourth grades in the two elementary schools whose reading and language scores on standardized achievement tests were below the 20th percentile. The target group was selected in early September on the basis of 1969 CAT scores, current Gates-McGinitie Reading Tests, and referrals from principals, teachers and the counselor. The selection was validated by CAT administered in October. The students' eligibility for the program proved accurate in most cases. A few who scored above the 20th percentile continued in the program on the recommendation of the principal on the basis of their emotional handicaps and who seemed to be responding favorably.

EVALUATION DESIGN

The evaluation design is the same as described in the original Title I Application. Pre and post standardized achievement tests (CAT) were administered to all participating students to evaluate Objective I. Sampling of these test results are included in this report, as well as graphs indicating the progress of the individual students in the program. Objective II is being evaluated by 26 selected items from the SIS Student Behavior Check List rated by the classroom teachers. These ratings were completed in October and again in April. The items selected measure movement toward a more positive attitude of the individual. Objectives I and II are being evaluated by the State Department of Education (SIS) and the analysis attached (hopefully).

FINDINGS

Pupil Outcomes: Reading achievement as measured by standardized pre and post tests: (approximate)

Reading
Pre Test — Date Adm. 10-27-70 Grade 2 47 Students

36% scoring at 1st percentile
60% scoring from 1st to 5th percentile
75% scoring from 1st to 10th percentile.

Post Test — Date Adm. 4-27-71

2% no progress or regressed
32% progressed from 2 to 10 percentiles
28% progressed from 11 to 20 percentiles
36% progressed more than 20 percentiles

Fifty-nine percent of the combined 3rd and 4th grade participants scored below the 20th percentile on the CAT pretest. Forty-one percent who scored from 20th to 74th percentile remained in the program on the basis of handicaps other than reading deficiency.

Pre Test — Date Adm. 10-27-70 Grades 3 and 4 32 Students

43% scoring from 1st to 10th percentile
59% scoring from 1st to 20th percentile
31% scoring from 20th to 37th percentile
6% scoring above 50th percentile

Post Test — Date Adm. 5-3-71

37½% progressed from 1 to 10 percentiles
12½% progressed more than 10 percentiles
50% made no progress or regressed

The measurement of outcomes in terms of Objective II, or movement toward positive attitudes are dependent on the analysis by SIS of pre and post teacher opinions expressed on the Student Behavior Check List. Empirical evidence by observations and anecdotal records indicate the majority of the students improved noticeably in their ability to communicate and relate with adults, peers and developed more self-motivation in academic tasks, movement toward more acceptable behavior patterns, and generally improved self-image.

EFFECTIVENESS OF FACILITATING MEANS

Philosophy: The special training of the aides and the supervising teacher in recognizing individual differences and the understanding of children with disabilities created an atmosphere of acceptance and established positive relationships early in the program. Some difficulty was encountered at the beginning of the school year with teachers accepting individualized instruction of their students implemented by instructional aides. This situation

improved as the program progressed.

Facilities: Initially the program was attempted with the aides working with the target group in the regular classroom. This was not successful for several reasons: adjustment of the teacher to the situation, use of varied materials and media in the classroom, difficulty in achieving satisfactory relationships with target children, and generally disruptive to regular classroom activities particularly in crowded classrooms with a large number of problem children. The move to a separate classroom provided a climate more desirable for individualized instruction as well as group activities, opportunity for effective supervision by the Title I teacher, use of appropriate media freedom for the children to respond in the group and experience a meaningful relationship with an adult.

The incorporation of the Title I program in the regular school day was much more successful than the extended day previously used.

Personnel: The trained aides working under the direction of the skilled supervising teacher accounted for a great deal of the success of the program. The team approach involving specialists and resource people was significant in diagnosing specific learning and emotional difficulties and providing recommendations for alleviating the problems.

In Service Training: The preschool and culminating workshops contributed significantly to the program. In addition to these, regular sessions involving the aides and supervising teacher were conducted for training in the use of various instructional materials and media.

Evaluation-Planning-Instructional Media: Continuing pupil progress reports were kept by the aides and reviewed regularly by the supervising teacher. Her responsibility was to diagnose each child's needs and plan the individual instruction, recommending change or innovation as needed. This on going prescriptive planning gave momentum and direction for the appropriate learning experiences of each child.

Instructional materials and media were exceptionally adequate and varied. Programs primarily focussed on reading skill areas. Developmental programs in visual perception, motor skills development, and language development were incorporated as needed. The regional special education supervisor was particularly helpful in recommending and procuring materials.

Parent Involvement: Invitations to conferences with the Title I aides and supervising teacher were given to parents of participating children at the time of the regularly scheduled school parent-teacher conferences. These were attended by a high percentage of the parents. Parents of children with special problems were either contacted or came voluntarily for conferences with the counselor. Several parents came to visit and observe the program during the year.

Early in May several parents of the Title I students were invited to form a Parent's Advisory Group. This group will continue meeting regularly during the next school year.

CONCLUSIONS

The achievement test data provides factual evidence of program results and indicate the greatest academic gains were made by the second grade children. This suggests the earlier in a child's school experience that programs such as Title I can be initiated, the greater likelihood of success. Test scores for the 3rd and 4th grades reflect moderate to minimal gains or none at all. It must be recognized that these children had been failure oriented for a longer period of time and the educational gap was wider. Measurement of actual academic progress is problematic when grade level tests are administered to these children. This may suggest that more appropriate criteria are needed, and may reflect the stated philosophy that favorable attitude change must occur before meaningful academic learning can take place. This change does not occur as quickly with children who have experienced several years of failure and whose disabilities rather than strengths have been reinforced.

Perhaps the more significant appraisals of the total program were the observations of principals, teachers and the children themselves. A positive change of attitude toward the program has occurred in each instance. Most children involved were enthusiastic and rarely needed reminding of their "Title I scheduled time." Others asked to be admitted. Teachers welcomed assistance with their "problem children," and principals felt the program partially provided for some of the children with special needs for whom he was responsible.

RECOMMENDATIONS

1. Continuing effort toward earlier and more specific identification and screening for the target group.

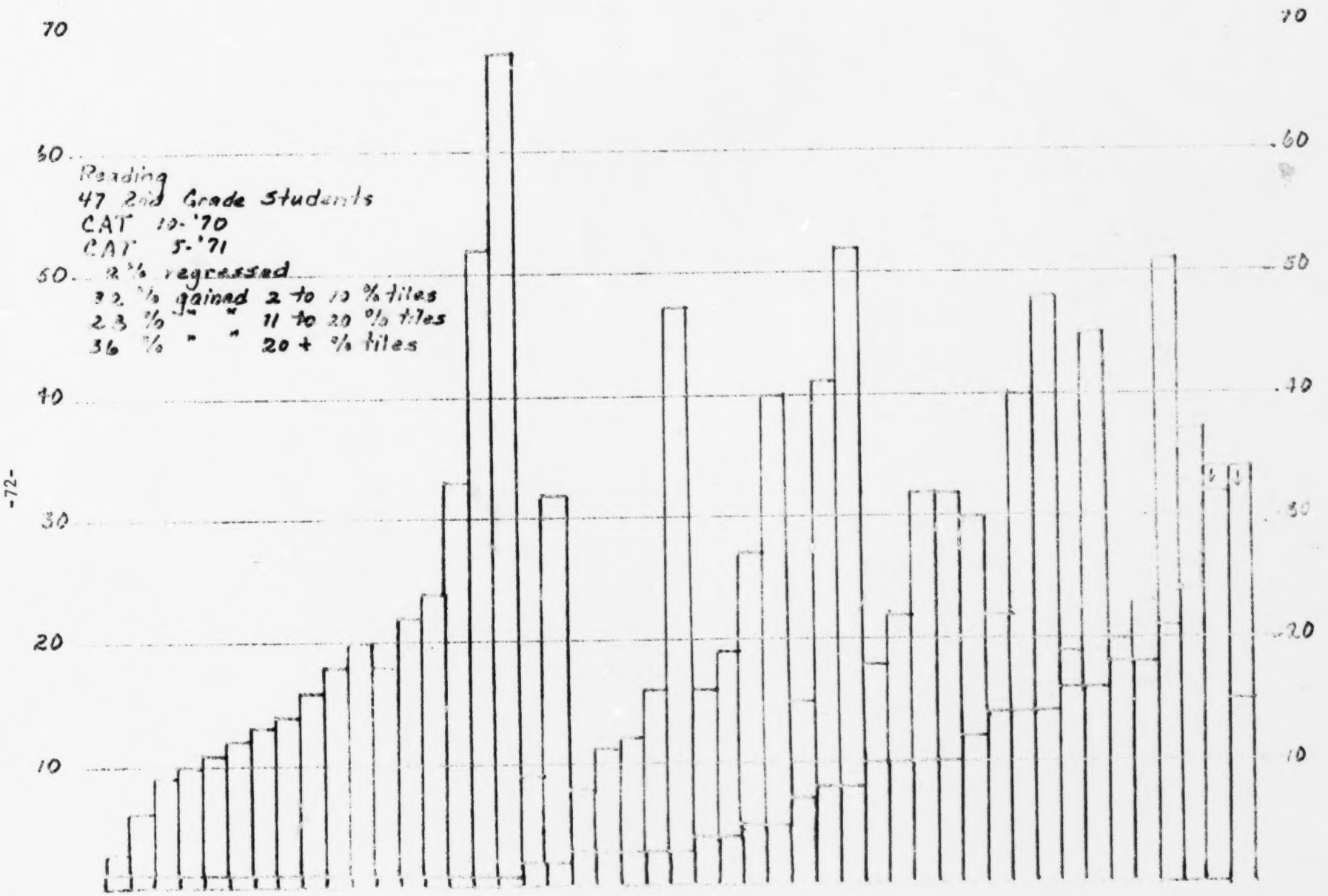
2. Objectives for the program written in terms of the individual rather than the group, i.e. percentile gain pre and post.

3. Evaluation of objectives completed locally including rating scales for students such as Piers-Harris Rating Scales for measuring attitude and behavior change, as well as teacher ratings.

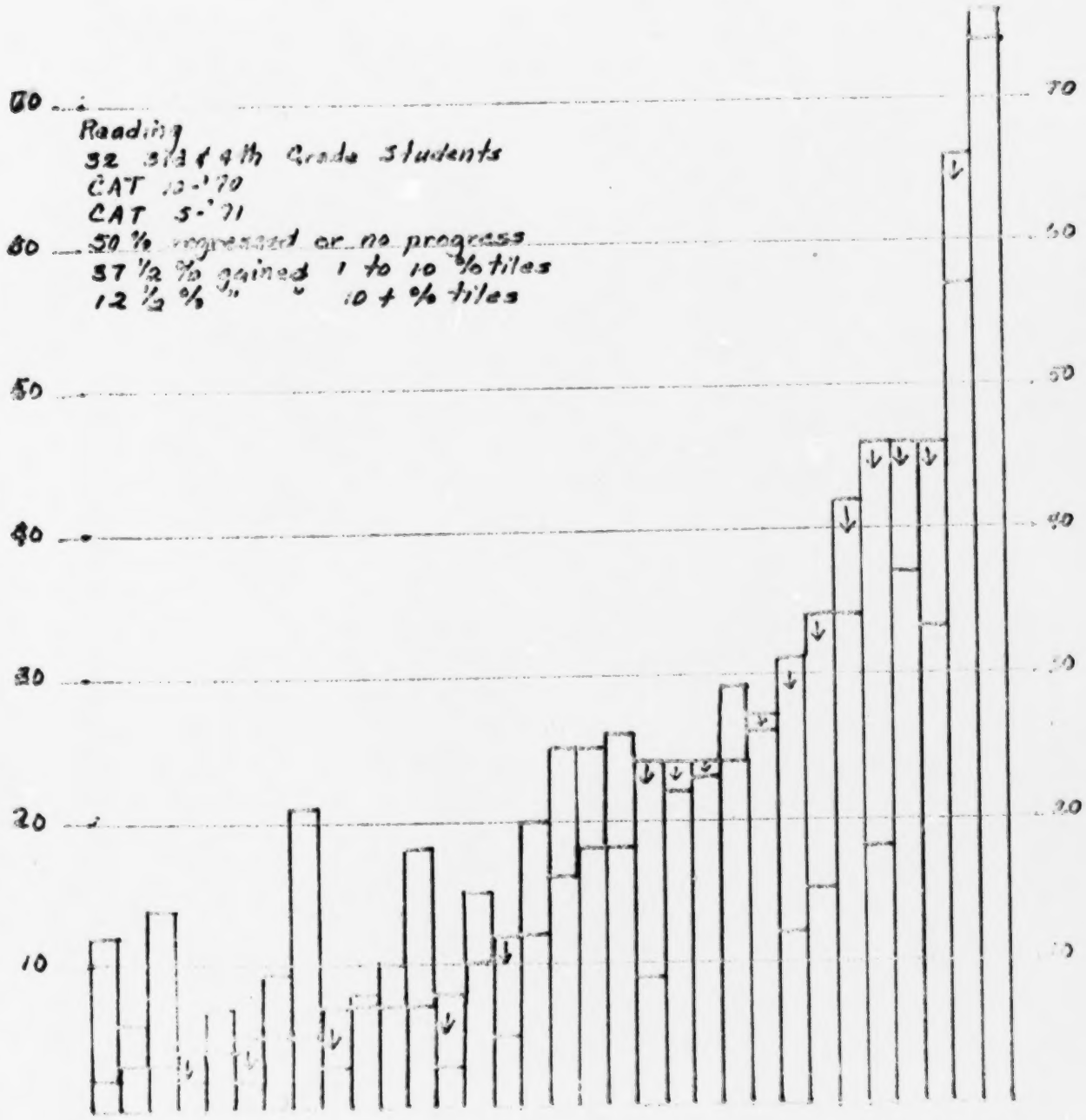
4. Promote teacher understanding of the Title I program as designed for the district, its objectives, and philosophy. Encourage participation in staffing sessions concerning children in their classrooms.

5. Effort should be made to ensure the active involvement of the Parent Advisory Committee.

6. Continuation of the use of trained instructional aides, the supervising teacher and special resource personnel.


70
60
50
40
30
20
10
Reading
47 2nd Grade Students
CAT 10-'70
CAT 5-'71
2% regressed
32% gained 2 to 10 %tiles
28% " 11 to 20 %tiles
36% " 20+ %tiles
-72-

74


Reading
32 3rd & 4th Grade Students
CAT 10-'70
CAT 5-'71
50 % regressed or no progress
37 1/2 % gained 1 to 10 %tiles
12 1/2 % " 10 + % tiles
70
60
50
40
30
20
10

APPENDIX H

Staff Names and Roles

A. EPDA Project Staff

Jean Pugmire	Project Director
Kenneth Farrer	Project Co-Director
Arthur Jackson	Director of Budget and Coordinator of Practicum
Bruce Arneklev	Research Coordinator
Joan Thorkildsen	Special Education Liason
Thomas Taylor	Instructional Media Specialist
Susan Shandruk	Secretary

B. Edith Bowen Laboratory School Staff

Arthur Jackson	Principal
Joan Bowden	Kindergarten Teacher
Alice Chase	Primary Unit I Teacher
Marjorie Rappleye	Primary Unit II Teacher
Amelia Hernandez	Primary Unit III Teacher
Eyre Turner	Primary Unit IV Teacher
Barbara Howell	4th Grade Teacher
Ivan Pedersen	5th Grade Teacher
Helen Tanner	6th Grade Teacher
James Blair	Hard-of-Hearing Class Teacher
Ruth Rice	Librarian
Mark Latham	School Counselor
Elaine Johnson	Secretary
Denzil Harris	Custodian
Elizabeth Erni	Maintenance

C. Resource Consultants from Department of Elementary Education

Edith Shaw	Acting Department Head
Bryce Adkins	Team Consultant
Malcom Allred	Team Consultant
Mary E. Carigan	Team Consultant
Gail Johnson	Team Consultant
Jay Monson	Team Consultant
Morris Mower	Team Consultant
Evelyn Wiggins	Team Consultant

D. Resource Consultants from Department of Special Education

Marvin Fifield	Department Head
Lionel Brady	Team Consultant
Jim Butler	Team Consultant
Julia Collins	Team Consultant
John Fredricks	UAF Staff
Joanne Gillis	Instructional Media
Alan Hofmeister	Team Consultant

Janette Hofmeister	
Jan Nash	
Dwayne Peterson	Team Consultant
Phyllis Publicover	Team Consultant
Devoe Rickert	Team Consultant
Graduate Students	
Sam Hedrick	
Glen Latham	
Bob Nash	Tutor
Joseph Stowitzchek	Tutor
Tom White	Tutor
Jim Wishert	

E. Other Utah State University Staff Resources

Oral Ballam	Dean, College of Education
Carolyn Barcus	Counselling & Psychology
Lois Downs	Health, Physical Education, & Recreation
Jay Jensen	Communicative Disorders
Jackie Littledyke	Communicative Disorders
Graduate Students	
Speech Therapist	Communicative Disorders

F. Superintendents

Cache Co.	Bryce Draper
Grand Co.	Robert Sundwall
Iron Co.	J. Clair Morris
Ogden City	Wm. L. Garner (contact - Byron Moore)
Piute Co.	Donald C. Whittacker
Tooele Co.	Clark N. Johnsen (contact - Keith Steck)

APPENDIX I

Trainee Names and Addresses

Follow-Through Locations for First Semester Personnel

Name	School Location For Follow-Through	Permanent Forwarding Address
(Teachers)		
Bevan, Alice	West Elementary School Tooele, Utah 84074	460 South 1 West Tooele, Utah 84074
Jolley, George	Piute County School Office Junction, Utah 84740	Antimony, Utah 84712
May, Ema Lee	Tooele Central School Tooele, Utah 84074	421 No. 200 West Tooele, Utah 84074
McClatchy, Joy	Helen M. Knight School Moab, Utah 84532	336 Park Rd. Moab, Utah 84532
Shawcroft, Elaine	Helen M. Knight School Moab, Utah 84532	Helen M. Knight School Moab, Utah 84532
Stephensen, Elaine	Dee School Ogden, Utah 84401	1438 Adams Ogden, Utah 84401
Van Dyke, Nancy	Jefferson School Ogden, Utah 84401	4050 Madison #18 Ogden, Utah 84401
Walk, Blanch	Park School Richmond, Utah 84333	40 No. 425 East Smithfield, Utah 84335
(Aides)		
Arellano, Sylvia	Tooele Central School Tooele, Utah 84074	193 West 2 South Tooele, Utah 84074
Day, Bonnie	Helen M. Knight School Moab, Utah 84532	238 Aspen Ave. Moab, Utah 84532
Manchego, Rita	West Elementary School Tooele, Utah 84074	455 Brooke Ave. Tooele, Utah 84074
Martinez, Mary	Jefferson School Ogden, Utah 84401	2471 "A" Ave. Ogden, Utah 84401
Nordfelt, MoNene	Southeast Elementary School Moab, Utah 84532	304 E Center Moab, Utah 84532
Ramsey, Phyllis		1414 Maple Drive Logan, Utah 84321

Name	School Location For Follow-Through	Permanent Forwarding Address
Talayumptewa, Laura		35L USU Apt. Logan, Utah 84321
Valdez, Celia	Dee School Ogden, Utah 84401	4661 So. 475 West Ogden, Utah 84401

Follow-Through Locations for Second Semester Personnel

(Teachers)

Ash, Leola	Summit School Smithfield, Utah 84335	441 E 6 No. Logan, Utah 84321
Bracken, Marvin	Escalante Valley School Beryl, Utah 84714	Beryl, Utah 84714
Callister, Gary	Grantsville Elementary School Grantsville, Utah 84029	106 McMichael Ave. Grantsville, Utah 84029
Dustin, Lou	Southeast School Moab, Utah 84532	Southeast School Moab, Utah 84532
Glenn, Alice	Jefferson School Ogden, Utah 84401	208 Patterson Ogden, Utah 84401
Hansen, Shirley	Utah State University Logan, Utah 84321	424 Huntridge Moab, Utah 84532
Stanger, Fred	Jefferson School Ogden, Utah 84401	Rt. #4 Box 333 Ogden, Utah 84401
Van Dyke, Calva	Park School Richmond, Utah 84333	Lewiston, Utah 84320

(Aides)

Andersen, MellRee	Park School Richmond, Utah 84333	Mendon, Utah 84325
Anderson, Maxine	Summit School Smithfield, Utah 84335	254 So. Main Smithfield, Utah 84335
Benson, Pamelia	Escalante Valley School Beryl, Utah 84714	P.O. Box 295 Cedar City, Utah 84720
Chacon, Erma	Helen M. Knight School Moab, Utah 84532	Box 732 Moab, Utah 84532

Name	School Location For Follow-Through	Permanent Forwarding Address
Espinoza, Mary	Jefferson School Ogden, Utah 84401	2019 Adams Ave. Ogden, Utah 84401
Herrera, Arcelia	Jefferson School Ogden, Utah 84401	2015 Adams Ave. Ogden, Utah 84401
Maestas, Mary	Helen M. Knight School Moab, Utah 84532	Box 1165 Moab, Utah 84532
North, Dorothy	Grantsville Elementary Grantsville, Utah 84029	444 So. Quirk Grantsville, Utah 84029

APPENDIX J

Edith Bowen Full-Time Aides

Name	Dates	Grade	Address
Alcaro, Leanna	September 1 - May 31	P.U. III	817 East 1 No. Apt. 1 Logan, Utah 84321
Anderson, Cindy	September 1 - December 1	P.U. I	860 No. 650 E #4 Logan, Utah 84321
Epps, Patricia	September 1 - January 31	P.U. I & IV	9737 Mt. Pisgah Rd. #611 Silver Springs, Md. 20903
Gomez, Judy	September 1 - May 31	5th Grade	USU Apt. 4I Logan, Utah 84321
Hubbard, Pamela	September 1 - May 31	4th Grade	Star Rt. Grace, Idaho 83241
Makaratad, Phongpun	September 1 - May 31	Kdg.	P.O. Box 1226, USU Logan, Utah 84321
Murphy, Candyce	September 1 - May 31	P.U. II	332 E. Yosemite Manteca, California 95336
Nyman, LaVerna	December 1 - May 31	P.U. IV	2627 No. 16 E. Logan, Utah 84321
Richardson, Hazel	September 1 - May 31	6th Grade	Apt. 19I USU Logan, Utah 84321
Talayumptewa, Laura	February 1 - May 31	P.U. I	35L USU Apt. Logan, Utah 84321

APPENDIX K

Student Teachers' Names and Addresses

NAME	ADDRESS	GRADE
Adamson, Janelle	453 E. 6 N., Logan, Utah	6th
Allen, Judy	675 No. 8 E., Logan, Utah	5th
Anderson, Susan	745 E. 9 No., Logan, Utah	PU III
Arnoldsen, Rinda	620 E. 500 No., Logan, Utah	6th
Bagley, Margaret	1956 No. 16 E., Logan, Utah	Kdg.
Barrett, Shauna	745 E. 9 No. Apt. 14, Logan, Utah	Kdg.
Bills, Sherrie	651 E. 600 No., Logan, Utah	6th
Bingham, Beth	20 Hillside Circle #2, Logan, Utah	Kdg.
Bodily, Mary	38 W. 5 No., Logan, Utah	4th
Budge, Patricia	380 Canyon Rd., Smithfield, Utah	PU I
Buck, Kathleen	98 No. 1 E., Hyrum, Utah	5th
Burton, Edith	Box 10, Millville, Utah	5th
Burton, Frank	1275 E. 10 No., Logan, Utah	4th
Chapman, Joanne	90 Hillside Circle S-2, Logan, Utah	6th
Dimick, Peggy	944 No. 7 E. Apt. 1, Logan, Utah	PU II
Farrer, Martha	1685 Saddle Hill, Logan, Utah	PU I
Fiscus, Pamela	868 No. 4 E., Logan, Utah	PU III
Huppi, Janean	1249 No. 800 E., Logan, Utah	PU IV
Hyde, Paula		Kdg.
Kawahara, Pamela	657 E. 5 No. Apt. 6, Logan, Utah	4th
Kennedy, Wella	20 Hillside Circle, Logan, Utah	PU II
Kern, Stanley	8212 E. High Rise, Logan, Utah	5th
Lemon, Sherri Lynn		PU I
Lyons, Denis	Logan Fire Stn., Logan, Utah	PU II
Marasco, David	795 No. 8 E., Logan, Utah	PU III
Marshall, Kathleen	255 West Center, Logan, Utah	PU IV
Morse, Deanna	255 No. 2 E., Hyde Park, Utah	PU IV
Perry, Roselyn	361 E. 1 So., Logan, Utah	PU III
Peterson, Sharon	5 No. 6 E., Logan, Utah	PU II
Ping, Kathleen	678½ Darwin Ave., Logan, Utah	PU IV
Pulley, Camile	364 No. 5 E., Logan, Utah	5th
Reynolds, Vicki	90 Hillside Circle, Logan, Utah	PU I
Roberts, Ann	125 W. 5 No. Logan, Utah	PU III
Smith, Marilyn		Kdg.
Steed, Deborah	675 No. 8 East, Logan, Utah	4th
Tateoka, Susan	657 E. 5 No., Logan, Utah	6th
Tolman, Ronald	246 No. 3 West, Logan, Utah	PU I
Vogel, Mary Jane	54 No. 2 West, Logan, Utah	PU IV
Wright, Carolyn	6 No. 661 East, Logan, Utah	4th
Wright, Patricia	Hyrum, Utah	PU II
Yardley, Arlene		Kdg.

APPENDIX L

Student Centeredness Checklist:
A Measure of Individualization

Ratee _____ Date _____
Rater _____ Location (School) _____

Directions: Circle the response which applies to the learning environment as it was observed during a school day.

1.	The teacher utilized strategies which were designed to involve all students in classroom activities in various ways. (All students were expected to participate in various ways.)	(Yes) *	No
2.	The teacher utilized strategies which were designed to produce the same level (quantity) of performance in all students. (A minimum acceptable level of performance was established by the teacher.)	Yes	(No)
3.	Cooperative activities involving two or more students played a significant role in the activities of students.	(Yes)	No
4.	Lecture played a major role in teacher behavior.	Yes	(No)
5.	Opportunities were provided for the improvement of communication between each student and his/her classmates.	(Yes)	No
6.	Evaluation (e.g. grades or testing) was used as an end rather than a means	Yes	(No)
7.	Group pressures were used as a positive force in motivating individuals. (not scored)	Yes	No
8.	Students in the class often initiated the activities during class.	(Yes)	No
9.	The ideal image was the same for all students.	Yes	No
10.	The educational aide was involved as a participant in planning for instructional activities.	(Yes)	No
11.	The educational aide worked directly with children in a role commensurate with experience and training.	(Yes)	No
12.	Demands on children were commensurate with their ability in order to provide challenge while insuring a high degree of success.	(Yes)	No
13.	The setting of goals and evaluation in terms of these goals was accomplished with student participation.	(Yes)	No
14.	Each child assisted in keeping records of his/her own achievements.	(Yes)	No
15.	Educational activities -- were directed to the development of cognitive functioning (a) -- or gave significant attention to affective growth while promoting cognitive functioning (b).	(a)	(b)
16.	Children were expected to adapt to the curriculum (a) -- or the curriculum was tailored to the child (b).	(a)	(b)
17.	Decisions on the organization of the class -- were made completely by the teacher (a) -- were made with the help of students at least once during the day (b).	(a)	(b)
18.	The focus of teacher behavior was -- mainly on knowledge as a product (a) -- or was also obviously concerned with knowledge as a process (b).	(a)	(b)

*Desired responses are keyed here but not on forms used in evaluation.

APPENDIX M

Letter from
GRAND COUNTY SCHOOL DISTRICT

January 13, 1971

Miss Jean Pugmire, Director
EPDA Project
Edith Bowen Laboratory School
Utah State University
Logan, Utah 84321

Dear Miss Pugmire:

In making a report on the use we are making of teachers and aides who have participated in the program at Edith Bowen School in the last two years, I would first state we feel this has been one of the best projects we have participated in for several years.

The teachers who have been in the program have returned to their classrooms with renewed strengths. This is obvious in the skills they have attained regarding the teaching of children with handicaps. It is evident to us who observe that the teachers are much more sensitive to needs of such children. Very important, we see a change in teacher attitude, for example, they not only have learned new ways of approaching such children but also have the confidence that they are able to do something for these children.

While we have placed the teachers back into the same classroom situations they had before the Logan program, we have what we believe to be a program for using aides which would not have been possible without the training they received in the project.

We have combined the abilities of these aides with the objectives of our E.S.E.A. Title I program. We use these aides two ways, one being in the classroom with the teacher and the others in a special room where they can help one or two children with learning handicaps. The children they work with are those who qualify under the Title I program. In order that teaching time not be taken in giving instructions and directions to these aides, we have appointed one teacher as a director. This teacher, Mrs. Doris Wilson, was a participant at Logan. She works with the teachers to help determine the children who need and can benefit by the help of the aides; what the teacher would like to have done with these children, and then instructs and works with the aides in preparing them to provide the services needed. She also observes and assists the aide as she works with the children. The work done by the aides, of course, does not go beyond their capabilities nor is it a part of the teaching process, rather it is as a help for the children.

Miss Jean Pugmire, Director
EPDA Project

January 13, 1971

The evaluation of this program, its effect on the children by the teacher, and by testing has shown that a great deal has been accomplished. We feel, in fact, this is the first time we have been able to have an affective program for these children according to the purpose of Title I. Specialists from the State Department of Education have also observed our program and expressed themselves as being very pleased.

We feel we have been extremely fortunate to have been able to participate in the project at Logan. Each of our teachers and aides that have been in the project have expressed themselves as being very pleased. This is the kind of training we wish every teacher in our school district could have.

Sincerely,

C. Robert Sundwall
Superintendent

CRS:en

APPENDIX N
Letter from

Duchesne County School District

TELEPHONE 738-2411

DUCHESNE, UTAH 84021

Thomas J. Abplanalp,
Superintendent

January 19, 1971

Miss Jean Pugmire
Stewart Training School
Utah State University
Logan, Utah

Dear Miss Pugmire;

The Duchesne County School District is using the aides that attended the training program in very interesting and effective ways. All aides that reside in the school district, who were involved in the training program, are employed.

Lois Stansfield is working as an aide to the District Speech and Hearing Therapist. After completing the work at Logan she was given further training and is doing an outstanding job working with pupils with speech and hearing problems.

Mrs. Lott is serving as an aide at Duchesne Elementary in the upper team. She is working closely with children with learning problems as well as those children who attend the emotionally handicapped learning center in the school.

Mrs. Miles is serving as an aide at Altamont Elementary. We have a large class in the third grade and she assists the teacher with the total program.

Miss Abegglen is serving as an aide at Myton Elementary School. Her major assignment is working with Indian children in the regular classroom.

Mrs. Frost is working as an aide in the Adult Basic Education program in our district. The majority of the enrollees are adult Indians.

We are using eighteen aides in our district. We feel they are serving a real purpose and our program is enriched through their efforts.

Sincerely,

Thomas J. Abplanalp
Superintendent

TJA/bj

APPENDIX O
Letter from

UTAH STATE BOARD OF EDUCATION

1400 UNIVERSITY CLUB BUILDING, 136 EAST SOUTH TEMPLE STREET
SALT LAKE CITY, UTAH 84111

WALTER D. TALBOT, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

May 4, 1971

Bruce ArneKlev
College of Education
Utah State University
Logan, Utah 84321

Dear Mr. ArneKlev:

Thank you very much for your excellent presentation at the statewide Conference on Teacher Education held on your campus. We have heard many fine comments on your module and congratulate you for your thoughtful preparation and delivery.

We feel that the educational scene in Utah has been enriched because of your efforts.

Thanks again!

Sincerely,

Roger C. Mouritsen

ROGER C. MOURITSEN, Ph.D.
Specialist, Teacher Education

RCM/kd

LERUE WINGET, Deputy Superintendent
Office of Instruction Services

VERE A. McHENRY, Administrator
Division of Instructional Support Services
Teacher Personnel (801) 328-5965
Special Education, Pupil Personnel (801) 328-5982

APPENDIX P

UTAH STATE UNIVERSITY · LOGAN, UTAH 84321

EPDA PROJECT
EDITH BOWEN LABORATORY SCHOOL

25 February 1971

Mr. Richard James
Associate Director
American Association of Colleges for
Teacher Education
One Dupont Circle
WASHINGTON, D. C. 20036

Dear Mr. James:

Professor Jean Pugmire asked me to respond to your letter of February 3, 1971, concerning "...problems in teacher education as they apply to racial and ethnic minorities in the United States."

We are in the second year of an EPDA project to train educational personnel to work with handicapped children in the regular classroom. We concur philosophically with EPDA in the promotion of programs that encourage the use of minority group members as teachers and aides of children, especially in the groups which they represent. Promotion of institutional change to accommodate the needs of individuals who have not been socialized in a WASP society is proving to be a fulcrum by which to change programs to better meet the needs of all personnel. This process has served as an impetus for the re-examination of many assumptions about the teaching-learning process. It has not as yet offered many answers, but perhaps it will serve as a perspective from which appropriate questions can be asked.

Traditional questions of what types of teachers, what types of pupils, and/or what types of curriculum materials serve to promote the greatest learnings are less than adequate. Questions about the interaction of these factors and others would seem more appropriate. Testimony from several sources has convinced me that minority group members are commonly more emphatic and better able to communicate with disadvantaged children. They are less "hung up" on cognitive skills and conceptualizations which most formal educational institutions tend to promote. They have more patience for and are more appreciative of affective interactions with less sophisticated children.

Psychometric approaches to the evaluation of teacher education programs, which are of questionable utility even for more typical personnel, become less adequate as the range of variance in ethnic and language backgrounds increases. I have noticed this specifically with the Minnesota Teacher Attitude Inventory (MTAI) and several self-concept measures in working with American Indians (Ute, Navajo, and Hopi). Academically less sophisticated people from these tribes tend to score below zero on the MTAI, and defensiveness as measured by the self-criticism scale on the Tennessee Self Concept Scale tends to inflate self-concept scores. These interactive characteristics of minority groups and psychometric measures may only be symtomatic of more serious questions about the content and construct val-

.../2

idity of published measures which are often sought as instruments to demonstrate effectiveness in this era of accountability.

The nature of our problem of innovation and evaluation in higher education is summed up quite adequately by a statement of Robert Gagne in a critique of Do Teachers Make A Difference, an Office of Education summary of post-Coleman-report research (OE-58042, 1970, p. 172).

> If an administrator or policymaker asks the question, "what do teacher characteristics have to do with the outcomes of school learning," the answer should be - "we have no way of answering that question at present. First, we have no measures of learning outcome worthy of the name. Second, we have inadequate measures of input. And third, even if we had such measures the question about teacher characteristics should not be asked until we know better what processes the teacher is employing to insure learning."

This statement may leave the reader with a bewildering question about what we have been doing all these years pretending to be educators of educators. If this question does arise and is acted upon constructively, the inclusion of divergent minority groups into institutionalized education should be acknowledged as a worthwhile endeavor.

If minority groups are acknowledged as a desirable impetus to educational change, then the question of meeting their needs cannot be couched in terms of socializing them into an outmoded system. Rather they must be looked upon as spurs to alternatives in education that capitalize on the human resources which now have a tendency to be suppressed in order to promote a cognitively oriented establishment.

It is extremely difficult for us to change our institutions. We have been shaped by those institutions to perform in cognitive ways, and we perceive ourselves as being dependent upon their perpetuation in a form within which we can continue to function. Thus, there is a built-in resistance to change in any institution as long as it best meets the selfish needs of its supporters in an unchanged form. Those minorities on the outside have a formitable task of getting their needs met, legitimate though they may be.

Sincerely,

Bruce L. Arneklev, Ed.D.
Research Coordinator

BLA/ss

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AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION
One Dupont Circle, Washington, D.C. 20036 (202) 293-2450

March 17, 1971

Dr. Bruce L. Arneklev, Ed.D.
Research Coordinator
Utah State University
Logan, Utah 84321

Dear Dr. Arneklev:

The AACTE gratefully acknowledges receipt of information concerning multicultural programs in teacher education at your institution. The Commission on Multicultural Education regards these programs as significant contributions toward the development of a truly multicultural society.

We would very much appreciate it if you would continue to send us data describing the growth of your multicultural programs. Again, we thank you for your cooperation in this worthwhile effort.

With kindest regards,

Richard L James

Richard L. James
Associate Director

APPENDIX Q

Project Philosophy as Reflected in Roles

The nature of the educational environment is determined to a large extent by the roles which various people play to enrich that environment. During the training period personnel were given preparation for carrying out several different roles. The nature of these roles casts further reflections on the philosophy which the project sought to implement.

1. Roles of Teachers

The point of view is that everyone in the learning environment is a learner. The teacher is not primarily a dispenser of information, but rather an organizer of the learning environment. A single person could not possibly adequately assess every need of every child in a room, let alone prescribe materials as appropriate content to be assimiliated. Rather, the teachers' role is one of organizing the environment so that individuals can develop reliance on themselves as well as others (peers, aides, consultants, parents, etc. as well as teachers) as keys to their own learnings. In fulfilling this role the teacher must rely on many resources, both human and physical. The extent to which structure is desirable is dependent on the needs of the teacher as well as the student.

A major goal of this teacher role is to assist learners to rely progressively less on external structures in the environment and progressively more on internal structures within themselves. In this context the teacher becomes less of a dictatorial figure and more of a facilitating member of a learning group of individuals.

A professional teacher is legally responsible for his classroom, the safety of the children, and for the learning experiences that take place in that classroom. Therefore he must be responsible for the planning of the curriculum, the arranging of the environment, the diagnosis of the needs of children, and prescribing for these needs as well as the evaluation of the success or failure of his prescriptions. These are responsbilities that must not be abdicated by the teacher regardless of the skill or experience of the aide assigned to his classroom.

2. Roles of Aides

The housewife, the retired man or woman, the high school dropout, or the boy or girl still in school can serve as a valuable addition to the public school classroom as a teacher's aide or more important, as someone who has the time and is willing to <u>listen</u> to the young child.

Classrooms containing thirty or more children and under the supervision of only one person makes it difficult to meet the individual needs of children. By increasing the numbers of "teachers" the child not only has the opportunity to receive more individualized help, but he also has the choice of the person with whom he can relate in a positive way. Due to the child's own background and experience he may have a more successful experience in learning to read when he is assisted in his reading by a sixth grade boy or a grandparent than by teacher.

Although the aide, paid or volunteer, does not assume the professional role of teacher at any time, he does teach. By his very presence in the room the aide transmits his ideas, feelings, habits, skills, and values; therefore the aide must be selected carefully so that he will provide a worthy model for children to emulate.

The tasks that an aide can accomplish are limited only by the lack of resourcefulness and planning on the part of the teacher. Aides can serve as listeners, consultants, helpers, supervisors, leaders of small group activities which have been planned by the teachers, and numerous clerical tasks. Often the aide also acts as a bridge between the classroom and his own community. With training the aide can prove to be a valuable observer and resource person in collecting factual data about a child that will contribute in the diagnosing and prescribing for that child.

Too often in the past our public schools have given only clerical tasks to aides and their value as a warm responding, concerned person has been lost among stacks of test papers to be corrected and books to be filed. The very tasks assigned to aides in the past has tended to prevent the teacher from helping a child. Rather than providing him with an additional person to work with children he has used the aide to increase the amount of paper work completed by his students. Afterall, if someone else corrects the papers the teacher can give more written assignments and accumulate more test scores, but if the teacher does not check and analyze at least some of his assignments can he honestly know where Johnny needs help? Often what Johnny needs more than another written assignment is for someone to listen to why he answered the question the way he did and help him correct his own incomplete or incorrect concepts.

The aide can also help in the planning for a class by supplying a different point of view. A question asked by an aide can often make a teacher realize that he needs to simplify or expand his explanation of a topic.

People of all ages need to become involved with someone who needs them, not as only an extra pair of hands but as a warm and interested person. Only by expanding the number of aides, of all ages, in the classrooms can we provide for the needs of children and adults.

3. Roles of Teams

Any two or more people working (learning) together in some common endeavor are viewed as a team. This could be children, adults, or combinations of adults and children working together. The make-up ot teams continually shifts with the situation.

To adequately meet the needs of all children in a classroom where handicapped children are integrated, additional adult support is required. This can be obtained from volunteers, consultants, parents, student teachers, educational aides or other aspiring educators. The utilization of these personnel in team efforts without losing sight of the child's central role in the learning environment is one of current educational systems most challenging concerns.

APPENDIX R

A Tool for Assessing
Basic Reading Skills and Concepts

by Edith Bowen Faculty

Edith Bowen Laboratory School
Department of Elementary Education
Utah State University
Logan, Utah 84321

A Guide to Instruction

and

A Record of Pupil Achievement

Purposes of the program:

1. To enhance the learning of specific skills and concepts.
2. To guide the learner from simple to advanced reading achievement.
3. To maintain a visual and specific record of pupil progress in reading.
4. To support individualized instruction, continuous progress and independent pupil study.
5. To develop habits which result in productive experiences in both work and recreational reading.

During 1970-71 the Edith Bowen Laboratory School began ungrading the Primary Grades and individualizing reading in more depth. Such individual progress in reading requires individualized record keeping to record the level and skills of each child.

Record keeping systems were observed, studied, and evaluated. The following system was worked out and approved by the faculty at Edith Bowen. It is a working copy to be used and continually evaluated during the 1971-72 school year.

It should be understood by the users that every child need NOT learn the skills in the order they appear --- and --- some children DO NOT have to master every skill to become excellent readers.

This is a check list only, and we strongly suggest it be used to help record individual progress and NOT TO HOLD BACK progress of the child in any way. (Patience and perseverance is always advisable in launching a new adventure.)

A GUIDE FOR TEACHERS

I. The materials include three forms and a testing manual.

A. A set of guide sheets which outline and explain the specific skills and concepts.

B. An individual pupil record card on which the teacher marks the pupil's level of achievement in each specific skill and concept. This card is accumulative and follows the pupil from year to year.

C. A group record sheet on which the teacher marks all pupils' levels of achievement in each specific skill and concept. This is made new by each teacher each year and is used to check group strengths and weaknesses during a particular school year.

D. A testing manual which includes a page for each skill and concept. The pages are in plastic covers and placed in a looseleaf for ease of manipulation. This may be developed at the discretion of the teacher.

II. Structure of the guide sheets, individual record and group record sheet.

A. Each guide sheet and record card column relates to one level of achievement.

9 - Readiness	12a - Second grade, first level
10a - Pre-primer	12b - Second grade, second level
10b - Primer	13a - Third grade, first level
11 - First grade	13b - Third grade, second level
	14 - Extension and enrichment

B. Each guide sheet and card column is divided from top to bottom into four general categories.

Vocabulary	Comprehension
Word analysis	Oral and silent reading

C. The group record sheet has the levels, general categories and specific items listed at the top and the pupils' names listed in the left column.

III. Marking key.

A. All teachers mark with the same color during any given school year.

1970-71	(black)	1974-75	(purple)
1971-72	(red)	1975-76	(orange)
1972-73	(blue)	1976-77	(brown)
1973-74	(green)		

B. Each pupil's level of achievement will be marked on the individual record card as follows:

(No mark)	Not tested as yet.
(−) Low	Very little achievement, needs considerable help.
(+) Average	Average achievement, needs additional help.
(⊕) High	Very good achievement, needs enrichment.

IV. This program is neither dependent upon any particular publisher's materials nor any particular organizational pattern. It can be implemented in connection with almost any single or multi-based program.
Included as supplementary references are the Barbe Reading Skills Checklist (permission grated May 6, 1971) and Dr. Gail Johnson's group reading record with guide sheets.

KEY:
| low
† ave.
‡ high

_____ NAME

EDITH BOWEN SCHOOL READING EVALUATION RECORD

	level 9	10a	10b	11	12a	12b	13a	13b	14
Vocabulary	1	1	1	1	1	1	1	1	1
	2*	2	2	2	2	2	2	2	2
	3*	3	3	3	3	3	3	3	3
Word	4*	4	4	4	4	4	4	4	4
Analysis	5	5	5	5	5	5	5	5	5
Comprehension	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7
Oral and Silent Reading	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9
		10	10	10	10	10	10	10	10
197_ - 7_	*Percep-	11	11	11	11	11	11	11	11
197_ - 7_	tive								
197_ - 7_	Skills	12	12	12	12	12	12	12	12
197_ - 7_					13		13	13	13
197_ - 7_					14		14	14	14
197_ - 7_								15	

TEACHER CHECK LIST

The teacher check sheets list the minimum skills that a child should know for each level. Space is provided for the names of children who need further help in a specific skill.

Key:
V. - Vocabulary

W.A. - Word Analysis

Comp. - Comprehension

O. & S. - Oral and Silent Reading

*P. S. - Perceptive Skills (Readiness Level only)

Adapted from:

Ungraded Primary Program
C.J. Jorgensen School
Roosevelt School District
1701 West Roeser Road
Phoenix, Arizona

Level 9

V. 1. Can match capital and small letters.	*P. S. 2. Knows left to right and top to bottom patterns.
*P. S. 3. Visual discrimination. Recognizes likeness and differences in letters and words.	*P. S. 4. Uses picture clues.
W.A. 5. Auditory discimination i.e. recognizes rhyming sounds and initial sounds.	Comp. 6. Follows directions and carries out simple seatwork independently.
Comp. 7. Enjoys listening to stories and poems.	O. & S. 8. Dictates stories.
O. & S. 9. Expresses himself.	

	Level 10a
V. 1. Knows vocabulary of basic pre-primers and uses context clues.	W.A. 2. Identifies rhyming elements. Examples: Dick took sick look click brook
W.A. 3. Identifies the following initial sounds: b, c, d, f, h, g, l, m, p, r, s, w, t.	W.A. 4. Recognizes singular and plural forms (want apples). (wants apple)
W.A. 5. Discriminates between final sounds of p, t, k.	W.A. 6. Recognizes capital and non-capitalized word forms. Examples: Dad Some dad some
W.A. 7. Distinguishes characteristics of word blocks: Funny Father	Comp. 8. Identifies phrases and sentences when dictated by teacher.
Comp. 9. Understands what he reads.	Comp. 10. Is aware of opposite relationships (come - go).
Comp. 11. Listens to and follows directions.	O. & S. 12. Interprets punctuation marks and direct quotations (.?!") and identifies the speaker in a story.

Level 10b

V. 1. Recognizes most basic primer vocabulary.	W.A. 2. Knows names and sounds of all consonants: b,c,d,f,g,h,l,m,n,p, r,s,t,w,y,j,k,q,v,x,z.
W.A. 3. Hears final consonants d, b, m, n.	W.A. 4. Recongizes verb forms of ed, s, and possessive form (looked, wants, Tom's).
W.A. 5. Differentiation between the printed forms of wh, th, sh, ch.	W.A. 6. Uses (a) phonetic and (b) context clues to unlock new words.
Comp. 7. Completes seatwork assignments independently.	Comp. 8. Reads to find answers to question.
Comp. 9. Reads library books at pre-primer level.	Comp. 10. Understands the use of the table of contents.
Comp. 11. Remembers sequence of at least three ideas from reading.	O. & S. 12. Reads with meaningful expression.

	Level 11
V. Recognizes new vocabulary of a basic first reader.	W.A. 2. Recognizes parts of compound words.
W.A. 3. Substitutes initial consonants to make new words.	W.A. 4. Recognizes root words.
W.A. 5. Reads words involving ch, th, sh, wh.	W.A. 6. Recognizes consonant blends: bl,br,cl,cr,fl,fr,gl,gr,pl,pr, sc,sl,sm,sn,sp,sq,st,sw,tr,tw,sk.
W.A. 7. Knows short sounds of vowels: a, e, i, o, u.	Comp. 8. (a) Listens and follows directions and (b) reads and follows directions.
Comp. 9. Completes seatwork assignments independently.	Comp. 10. Reads independently for information.
O. & S. 11. Reads fluently with expression.	O. & S. 12. Reads library books at primer level.

Level 12a

V. 1. Recognizes new vocabulary in a basic text of level (2-1).

W.A. 2. Spells short words phonetically.

W.A. 3. Knows long sounds of vowels a, e, i, o, u.

W.A. 4. Knows alphabet in order and can alphabetize a list of words by the first letter.

W.A. 5. Uses consonant blends: bl,br,cl, cr, fl, fr, gl, gr, pl, pr, sc, sl, sm, sn, sp, sk, sq, st, sw, tr, tw.

W.A. 6. Observes single sound of final double consonants and medial double consonants (egg, pretty).

W.A. 7. Known soft c and g sounds and ck.

W.A. 8. Recognizes oo, oa, ai, ay, ea, ei, ee, ey, ie, igh, oe, oy, ow (now), aw.

W.A. 9. Changes y to i and adds es, est, er, ed.

W.A. 10. Recognizes word endings er, est, ly, ing.

Comp. 11. Uses table of contents.

Comp. 12. Reads silently for information and sequence of ideas.

Comp. 13. Follows written and oral directions.

O. & S. 14. Reads library books independently and records them. (The wheel type record is suggested.

Level 12b

V. 1. Recognizes new vocabulary words in basic text (2-2)

W.A. 2. Recognizes "y": Consonant (yes) when it says "e" as in (baby), and "i" as in (dye, by).

W.A. 3. Recognizes ow (long $\bar{o}$), oo (book, food), ch (machine), ph (phone), ea (reach, head) er, ir, ur (r), ar, or, ew, aw

W.A. 4. Recognizes: "a" (ball).

W.A. 5. Understands contractions.

W.A. 6. Recognizes three letter blends: Examples: str, spr, squ, thr.

W.A. 7. Recognizes compound words and understands the use of the hyphen in some compound words.

Comp. 8. Alphabetizes to the second letter of the word.

Comp. 9. Recognizes and uses words of opposite meaning.

Comp. 10. Selects the main idea in a story.

Comp. 11. Reads silently with good comprehension.

O. & S. 12. Writes short stories.

Level 13a

V. 1. Extends voacabulary by increasing competence in working out new words with phonetic clues: Prefixes, suffixes, simple syllabication.	W.A. 2. Understands medial division of words (mid dle, man ner).
W.A. 3. Recongizes words formed by dropping final "e" before adding an ending (hope, hoping).	W.A. 4. Recognizes silent consonants gh, h (hour), k (know), l (half), w (write), b (lamb).
Comp. 5. Sees relationships and can predict outcomes.	Comp. 6. Recognizes paragraphs.
Comp. 7. Uses dictionary to find and check word meanings.	Comp. 8. Skims. Reads to find specific information.
Comp. 9. Selects main idea and sequence in materials.	Comp. 10. Listens for information.
Comp. 11. Draws conclusions, makes judgements on basis of reading and applies it in his own life.	Comp. 12. Reads and understands picture maps.
O. & S. 13. Prepares and delivers oral reports.	O. & S. 14. Learns to describe characters and events accurately (orally, written, picture form).

Level 13b

V. 1. Recognizes new vocabulary words in basic text (3-2) and extends vocabulary.

W.A. 2. Understands that different letters may represent the same sounds. Examples: au, aw

W.A. 3. Understands meaning of synonyms, antonyms, and homonyms.

W.A. 4. Changes fe to ve to form plurals. Examples: knife - knives

W.A. 5. Recognizes words formed by doubling final consonant before adding and ending. Examples: let, letting.

W.A. 6. Understands and uses principles for long vowel sounds. Examples: boat, pole, no.

W.A. 7. Reviews special sounds of vowels followed by r (ir, er, ur, ar, or).

W.A. 8. Understands the variant sounds of a, e, i, o, u.

W.A. 9. Masters following blends: qu, so, tw, cl, sl, sm, sn, sou, spr, thr, scr, ahr, spl, str.

W.A. 10. Identifies root words in variant forms and uses forms correctly.

W.A. 11. Understands schwa (ə) is a common sound that every vowel has. ie: about, taken, April, lemon, circus.

Comp. 12. Understands multiple meaning of words. Examples: fast, spring.

Comp. 13. Rereads to locate specific information to verify an opinion or a point.

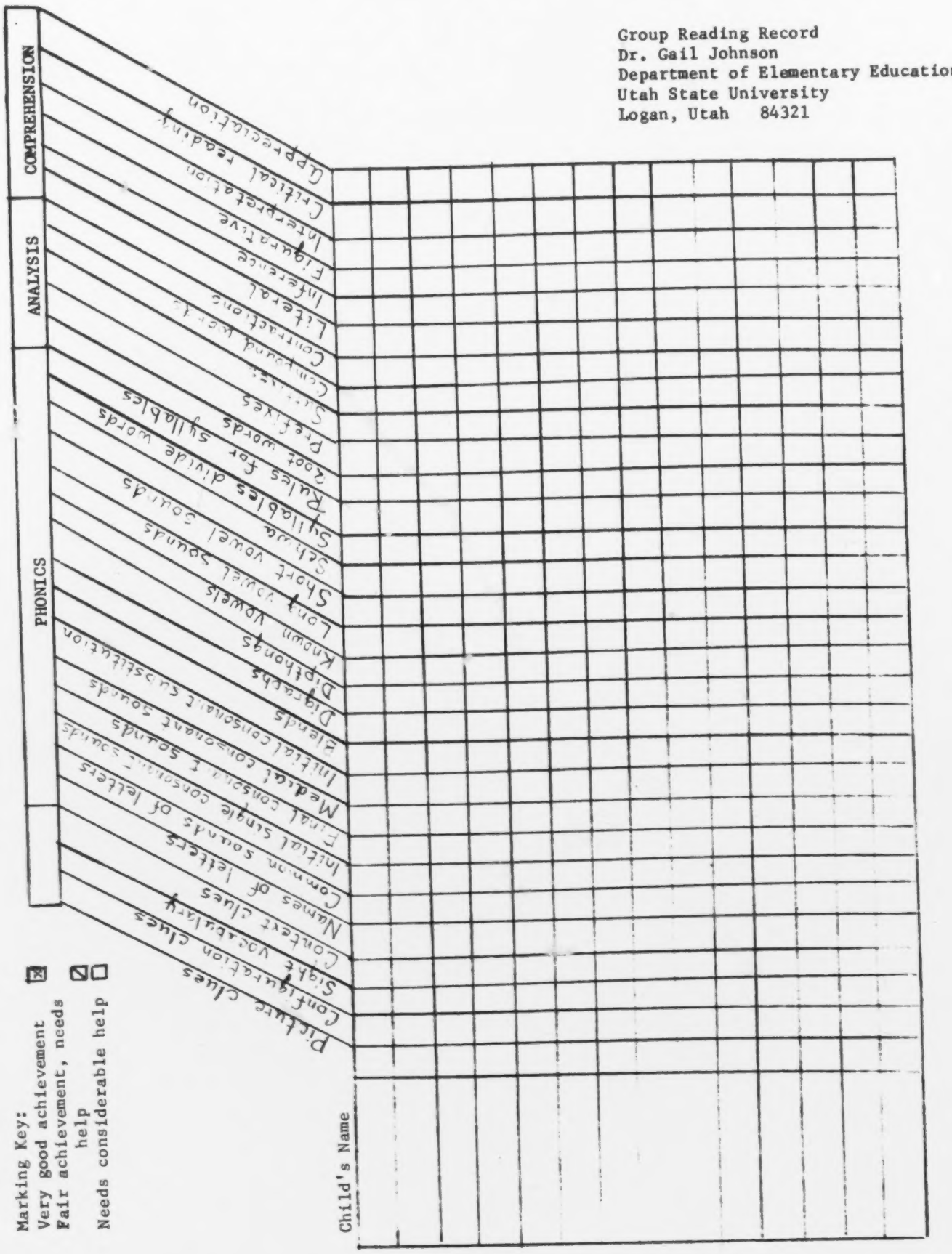
Comp. 14. Arranges words in alphabetical order according to the third letter.

Comp. 15. Selects main ideas and makes a simple outline.

Level 14

W.A. 1. Understands that if the first vowel in a word is followed by two consonants the first syllable usually ends with the first of the two consonants. Examples: win|ter (vc|cv) can|dy (vc|cv)	Comp. 2. Identifies and evaluates events, traits, and feelings of story characters. Sees beyond the obvious; senses implications that are not actually state (inference).
Comp. 3. Interprets figurative (night fell; the captain barked his orders) and realistic language. Restates it in pupils own words.	Comp. 4. Compares or contrasts situations presented with other story situations or real-life experiences.
Comp. 5. Summarizes and outlines materials.	Comp. 6. Uses reference materials to extend knowledge (dictionary, encyclopedias, card catalogue, filmstrips, study prints, etc.).
Comp. 7. Applies critical reading skills by being alert to the dependability and accuracy of the information.	Comp. 8. Writes reports and forms the habit of proof reading his own work.
Comp. 9. Classifies books into simple categories.	Comp. 10. Maintains comprehension while increasing speed.
O. & S. 11. Participates in listening,. writing, and creative activities such as poetry, stories, and dreams.	O. & S. 12. Reads for own enjoyment regularly.
O. & S. 13. Selects literature which is appropriate for the pupil's reading level.	O. & S. 14. Selects literature of a varied nature and high quality.

Group Reading Record
Dr. Gail Johnson
Department of Elementary Education
Utah State University
Logan, Utah 84321



Explanations of Catagories

for

Dr. Gail Johnson's Reading Record

by Primary Unit IV, 1970-71
Edith Bowen Laboratory School
Department of Elementary Education
Logan, Utah

1. Picture Clues: Identify a word or story by using the picture on the page as a guide.

2. Configuration Clues: The ability to recognize a word by its shape.

   Example: grandmother

3. Sight Vocabulary: Recognition of a word instantly (usually learned by repetition) Basic lists are:
   E.W. Dolch: beginning list of 220
   Dale: More advanced 3,000
   Clarence R. Stone: Revision of Dale list 769 Mower & G. Johnson

4. Context Clues: Clue obtained from the information before and after the word.

PHONICS

5. Names of letters: Being able to name (recognize) both upper and lower case letters.

6. Common Sounds of letters: Consonants which have the same sound.
   K, C, Q; S, C, Z; X, KS; G, J; F, PH, GH; Y, U.

6a. Single Sounding Consonants: (11 consonants with sure sounds)

H	R
L	B
M	D
P	W (usually)
T	N
V	

7. Initial Single Consonant Sounds: The consonant sound which begins the word.

8. Final Consonant Sounds: The last consonant sound in a word.

9. Medial Consonant Sounds: Any consonant sound(s) in the middle of a word.

10. Initial Consonant Substitution: Being able to read a variety of consonant sounds as they appear with endings that are the same: bat, cat, hat, mat, pat, rat, sat.

11. Consonant Blends: Is a combination, in one syllable, of 2 or 3 consecutive consonants each of which retains its own sound when pronounced. Initial Blends: Those that begin with S: SC, SK, SM, SN, SP, ST, SW, STR.
Those that conclude with l: bl, cl, fl, gl, pl, sl, spl.
Those that conclude with r: br, cr, dr, fr, gr, tr, scr, spr, str.

12. Vowel Digraphs: Two vowels appearing together having one sound.

12a. Regular Vowel Digraphs: Two vowels appearing together, usually takes the long sound of the first letter.
Long vowel sounds:

meet	easy
ceiling	rain
toe	boat
pie	key
grow	play

12b. Irregular Vowel Digraphs: Neither or which takes the long sound.

August	true
bread	raw
few	

12c. Consonant Digraphs: Two consonants representing one sound which is unlike the sound of either of the two letters.

chef	chair
phone	laugh
this	thin
she	bring

13. Diphthongs: Combination of 2 vowels both of which are sounded within one syllable. Examples: oil boy cow out few

14. Vowels: a e i o u sometimes w, y.

15. Long Vowel Sounds: The long sound is the name of the vowel
ā = age, gō, mē, mȳ, ice, Utah

16. Short Vowel Sounds: Most common vowel sound usually taught first in reading:

a	ă nd
e	gĕt
i	ĭn
o	ŏn
u	ŭp

17. Schwa: Common sound that every vowel has

a	ạbout
e	takẹn
i	Apri̤l
o	lemọn
u	circụs

18. Syllables: A vowel or group of letters containing a vowel, which is pronounced as a unit. man|age
get|ting

19. Rule for Syllables:

1. Every syllable contains a sounded vowel.
   Exceptions: dle, ble, zle, tle, cle, etc., at the end of words. (These particular endings are syllables but do not contain one of the conventional vowel sounds)

2. The number of vowel sounds in a word determines the number of syllables in the word.

3. A syllable may be a single vowel, such as: a-ble, o-boe, vi-o-let, ed-u-ca-tion or a syllable may contain a vowel digraph plus one or more consonants -- rain, meet, see.

4. In general, when 2 consonants fall between the two vowels, the division of syllables is between the two consonants:
   af - ter
   sis - ter
   win - dow
   gar - den
   pen - cil

5. Double consonants are usually separated:
   lit - tle
   val - ley
   let - ter
   sum - mer
   cot - ton
   din - ner

6. Prefixes and suffices which are syllables should be learned and recognized as units: un, ex, pre, ment, tion, tive, ly.

7. Consonant blends are usually not divided when breaking words into syllables: tea-cher, ta-ble, wea-ther, re-ply.

STRUCTURAL ANALYSIS

20. Root word: The basic part of a word, considered apart from prefixes, suffixes, etc. as "roll" is the root of roller and enroll.

21. Prefixes: Are syllables added to the beginning of words to alter their meaning.

precool	revisit
unfair	inability
refill	disagree
exchange	enlarge

22. Suffixes: Word endings which give root words different shades of meaning:

shorter	devilish
florist	happily
structure	lifeless
humanism	basement

23. Compound Word: 2 words united to form 1 word:

playground	without
bookshelf	everyone
loveseat	
notebook	

24. Contractions: Combine 2 words into one, but shortening it by replacing some letters of the 2nd word with an apostrophe:

I am	= I'm	has not	= hasn't
I will	= I'll	I have	= I've
he will	= he'll	have not	= haven't

COMPREHENSION

25. Literal: Accurate, factual account of what happened.

26. Inference: Seeing beyond the obvious; being able to sense implications that are not actually stated.

27. Figurative: Having a symbolic meaning, not literal.
Examples: 1. night fell
2. Don't throw your money away at the circus.
3. The captain barked his orders.
4. A finger of light moved acorss the airport.

28. Interpretation: Being able to restate it in their own words.

29. Critical Reading: Being watchful as to the dependability of the material; checking the accuracy of the information.

30. Appreciation: Enjoying/or seeing the value of the material read or seeing value in the style of writing.

APPENDIX S

Letter from
Melva Wiebe, Cache Co. Migrant Council

Miss Jean Pugmire
Dr. Bruce Arneklev
Edith Bowen Laboratory School

Dear Friends,

As you requested in our conversation last month, I am listing areas in which volunteers in education could work with migrant adults and teen-agers in one-to-one or two-to-one teaching arrangements during the coming summer.

Although literacy and proficiency in English are prime areas of need among these workers, it is felt, as I mentioned in our conversation, that this area would perhaps be better attacked incidentally while working on more specific and immediate problems. Such problems and needs are many and varied.

Some of the young people would like to learn to type. Some of the women would like to learn to read and follow patterns in sewing. The men would welcome instruction in auto repair and maintenance. Some of the migrants do not have valid driver's licenses because they cannot pass the written test in English. Studying the driver's manual might be a way to learn English while learning rules and regulations. In the area of nutrition, demonstrations and help in using and preparing low cost food might be welcomed. These people can get surplus commodities and qualify for food stamps but need instruction in how to use and prepare some of the foods they are unfamiliar with. (The Extension Service is willing to help in this area). Because the migrants themselves negotiate directly with individual farmers and other employers, they can use help in writing contracts and should be informed about matters such as social security, minimum wage, insurance, etc. They often need help in filling out forms and making applications. (Law students at the University of Utah are organized to advise in legal matters and are available to help low-income people). The imaginative, sensitive, and resourceful volunteer will no doubt find other areas in which to serve.

Volunteers would have to provide their own transportation to camp and would need to work out their own schedules with the individual migrants. The Cache Valley Migrant Council has limited funds for mileage. The Education Department of USU would no doubt help with materials. Equipment and space are very real problems and much improvisation will be necessary. Conditions in the camp are very primitive and are often unpleasant and unsanitary.

Also in our conversation a workshop or orientation program was mentioned. This should be held early in April. The Cache Valley Migrant Council suggests that Mr. and Mrs. Mike Weathers, Glenda Cole, and Dan Fahrlander be invited to participate. Mike and Shirley Weathers worked with migrants here in the summer of 1969 as Vista Volunteers and are now directing the Vista program among the migrants in Utah. Two Vista volunteers will be assigned to this area this summer and will probably arrive here in March. They should be invited to the workshop to become acquainted with the volunteer teachers because they will become a most important liason between the teachers and the migrants.

Mrs. Cole has had experience in working with Mexican-Americans in California and is well informed about suitable materials. Mr. Fahrlander has shown films at the migrant camp and has done other adult education work there for the past two summers.

There are several private and governmental groups that have been actively involved with the migrants who might supply informed personnel for the workshop. Mrs. Ann Winslow has been employed by the Department of Public Health for the past several summers and is well acquainted with the migrants who come to our valley. The Utah Migrant Council, a state-wide organization with headquarters in Salt Lake City and SOCIO (Spanish Speaking Organization of Community Integrity and Opportunity) might also provide resource personnel.

We are glad that college credit can be earned by participants and hope that the kind of people who can offer real help to the migrants will avail themselves of this opportunity to serve while enrolled in summer school.

Sincerely,

Melva Wiebe
Cache Valley Migrant Council

APPENDIX T

Student Involvement Due to EPDA

1. Ten graduate students have expressed testimony that they are pursuing advanced degrees in the College of Education at Utah State University because of participation in relationships developed through EPDA involvement.

2. Several aides and their relatives are engaged in college training because of EPDA project involvement.

3. Extension courses in school districts involved with the project are supported to a significant degree by students who were recruited by the project and its influences.

4. During the course of the year there were 50 student teachers involved in student teaching at the Edith Bowen School where handicapped children are integrated into the regular classrooms.

5. During the month of April 1971 documentation indicates that:

   a. doctoral students from the Department of Special Education received over 70 hours of field experience at the laboratory school.

   b. students from the Department of Elementary Education received over 128 hours of field experience at the laboratory school.

   c. students from the Department of Physical Education received over 40 hours of field experience at the laboratory school.

   d. doctoral students from the Department of Psychology received over 24 hours of field experience at the laboratory school.

   e. field experience students from the Department of Special Education received over 200 hours of field experience at the Laboratory School.

   f. students from Special Education 198 (Classroom Strategies in Learning Disabilities) received over 40 hours of field experience at the Laboratory School.

   g. the rate of student involvement with children has increased at an accelerating rate as university professors become acquainted with the possibilities for learning through participation.